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ROYAL COMMISSION ON COAL

Sydney, N. S., January 26th, 1944.

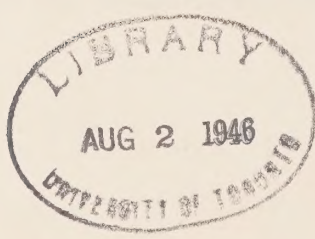
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SYDNEY, N. S., FRIDAY, JANUARY 26th, 1945. - 10:00 A.M.

Dr. T. O. BOYLE takes the stand

BY J. L. COHEN - I wonder if the Rev. Dr. Boyle would object if I asked the Commission for permission to add one remark to the general statement that I made yesterday, speaking I must say quite impromptu just by way of a correction.

BY COMMISSIONER McLAURIN - You spoke to us and said you had something you wished to read.

BY MR. COHEN - This is to be an insert in page 589, and that will go on the record so that the Commissioners will know just where it should appear, just towards the end of the page, the third line, after the word "importations" I should like to add another paragraph, which would read as follows:

"It has even been stated in fairly authoritative quarters, as to which I shall make further and careful inquiry before the Union brief is filed, that there may be physical limitations upon the amount of anthracite which can be extracted in future years from the American fields, with the result that the United States, with the very best of intentions, may be obliged in her own, or in their own essential interests, to curtail, if not entirely forbid, importation of anthracite into Canada."

I would appreciate it very much if that statement can be inserted, and read by the Commission into the record, and on the next line, instead of "if for that reason" I would ask permission to have it read "if for these reasons". Thank you very much.

DR. BOYLE then proceeds with the reading of the brief submitted by the Municipality of the County of Cape Breton, as follows:

## II. MARKETING

In the introduction to the section on coal in a book issued by the Department of Munitions and Supply and entitled "The Industrial Front" (page 184) we read:

"Coal is much more than a basic heating agent which keeps the home, the office and the factory warm. It is





"the mainstay of the metals industry, on which the whole scheme of living is based. It is the source of power for many factories, most railway trains, and most steamships. In addition, it is a treasure store of useful chemicals which heal the body, add a touch of glamor to women's attire, and perform an Arabian Night dream of transformations into thousands of war and essential civilian articles."

"When gas is made, coke and coal tars are produced. From the coal tars come thousands of compounds including dyes and medicinal preparations such as the famous sulphur drugs. Coal is a base for the manufacture of nylon, a necessary silk substitute from which parachutes are made. It goes into chewing gum, into plastics of many kinds, and, if need be, into synthetic fuel. As gas it cooks foods and hardens steels. As toluol it is a base for bomb-filling explosives. As a coke it is one of the two chief requirements for the production of iron and steel."

This is a heartening thought with which to begin a consideration of marketing. We have a rich and wonderful product in this great resource of ours and we know that it is good coal; therefore it should be highly saleable. Are there those who desire it? Yes, because the production of soft coal throughout all Canada has been sufficient in peacetime to supply only about half the total requirements for the whole country.

BY THE CHAIRMAN - Is it even that?

BY DR. BOYLE - I come back on this time and time again, because it is the whole thing. This submission might have only taken 10 minutes otherwise. We have the coal and they have to buy it. That is my argument.

DR. BOYLE (continues brief)

What are the difficulties we meet in marketing our coal? The first is geography. We here revert to the basal





thesis of our brief; our geographical difficulties come from our Political Federation, hence, if all Canada wishes to retain this Union each part of it must share the sacrifices as well as the advantages. We must have the tariffs, subsidies and subventions necessary to enter the Central Canada market. What these should be we trust the Commission will be able to determine with the knowledge to which it has access.

(It would be foolish for me to make any definite suggestions on that matter, because we have no possibility of finding it out.)

The second difficulty comes from legitimate competition. The buyer has the right to the best and most suitable product available. The onus here lies upon ourselves, on the men and Company. Their coal must be clean - and here we might mention that the coal bought today on the local market in Cape Breton is unnecessarily dirty. Surely this is a problem for the production committees.

(If the men and the companies are honest about this the production committees could do a great deal of good, and this is one way in which it can be done. I know sometimes lower production is to blame for bad coal. It appears if a mine lies idle for some time the roof deteriorates, and that delayed production causes dirty coal.)

Next, the coal should be properly prepared for the different types of consumers. This demands the continued research of which we speak in the next section. Methods of handling and problems of combustion equipment devolve upon us and upon our educational agencies.

We might mention here that our farmers spend six weeks or more gathering wood worth about \$25.00 worth of coal. This is evidence that our rural areas need the planning that will bring about some rural industries, a project to which much study is being given.





A third difficulty is transportation. We later devote a section to this matter but we wish to direct attention here to one phase of the problem, the loading piers at Sydney, at North Sydney and at Louisburg. The Commission might be well repaid if they investigate these both as to modernity and present state of repair. We read much of advance in unloading facilities, while our loading piers are very little changed in the memory of our eighty-year-old trimmers.

(Some 35 years ago I used to swim off of the same pier, which is known as the new pier at Whitney Pier. Naturally one would expect some advance.)

A fourth difficulty comes from the fluctuating prices of United States coal of which there is often a surplus. During the 'thirties the "dumping" of distressed American coal into Canada was a National scandal.

A fifth difficulty comes from competition from other energy producers. On this matter we have already touched. (You will remember that I read a quotation from the Bureau of Mines of the United States). Coal will never be so far displaced in Canada as to destroy our maximum market.

Marketing is a problem, but not an unsolvable one. Besides taking the means to solve the difficulties above mentioned there is need of aggressive salesmanship. A curious incident may interest the Commission. In only one year, 1937, did we sell any considerable amount of coal in the Province of Ontario. In 1932 we sold them 2300 tons; in 1933, 4800 tons; in 1934, 15,800 tons; in 1935, 108 tons; in 1936, 29,000 tons; in 1937, 84,391 tons; in 1938, 29,330 tons; in 1939, 6,700 tons.

You see the curve went from nothing up to a peak of 84,000 tons, and to I don't know what in 1940; nothing I imagine.

BY THE CHAIRMAN - We have some evidence very much different from this, on the record already.





A. That comes from the Mines Report of the Province of Nova Scotia

Q. Where do they get a market for this extra two million tons of coal brought about by subventions to railways?

A. I imagine it must be in Ontario and Quebec.

BY MR. FRAWLEY - The Mines Report of what year?

A. I should have noted that. Put down 1943.

BY COMMISSIONER McLAURIN It seems to me there has been more than that went to Ontario from 1932 on.

BY MR. FORSYTHE - We sold more than that in Toronto.

BY COMMISSIONER McLAURIN - The subvention market in Ontario reached two million a year.

BY MR. FORSYTHE - Mr. Kelley tells me the International Nickel took three hundred thousand tons.

BY COMMISSIONER MORRISON - What Mines Report is that?

A. 1943.

Q. What page?

A. There are a lot of Appendices in the book, and I don't think they are paged. I will bring that with me after lunch hour and read it to the Commission. Perhaps I made a mistake, but I can't understand why.

BY MR. FRAWLEY - Well you check it yourself and bring in the Report from which you took it.

A. It may refer only to domestic coal, I don't know. I put it as I say "a curious incident". I say here "In 1935, 108 tons in the Province of Ontario", but that is from the Mines Report.

DR. BOYLE (continues brief)

As between 1937 and 1939 it would appear that the only changed factor was that of sales exports. During those middle years which we have mentioned the Department of Mines of the Province of Nova Scotia made efforts to sell coal. It would appear to us that the Corporation and Government should extend themselves to improve the sale of coal.

(you will remember Mr. Dwyer, the Minister, made a great hellabaloo about going in and driving engines, and so on.





BY COMMISSIONER MORRISON - You mean he got a lot of publicity?

A. Well he sold some coal too, I imagine.

DR. BOYLE (continues brief)

The present greatly increased Maritime market should be retained. Not all the advance is due to war expansion of industry; much comes from the fact that our people have to buy the coal which for some reason was not sold them when imports to Canada undersold them on their own doorstep.

BY THE CHAIRMAN - That is not bituminous coal, is it?

A. Either bituminous or coke has replaced anthracite in the Halifax market, which they could not import because of the war.

Q. You say here "Not all the advance is due to war expansion of industry; much comes from the fact that our local people have to buy the coal which for some reason was not sold them when imports to Canada undersold them on their own doorstep." By that, do you mean that we were using or importing to any extent bituminous coal outside of our own coalfield?

A. That was the understanding I had.

Q. We have some figures on that and I don't think it amounts to very much. If you include in the Maritime markets, the Newfoundland markets, we have had the explanation of why our coal was replaced there.

A. I believe that had something to do with boats coming over empty.

BY THE CHAIRMAN - That is right.

DR. BOYLE (continues brief)

We do not ignore the factor of cost of production in the problem of selling but we have already dealt with it.

Finally, if the Fuel Board is restored after the war, it should retain many of the extraordinary powers now vested in the Coal Control section of the Wartime Industries Control Board.

With regard to that gentlemen, I do not go very strongly for statesmanship, I don't like putting too much in the hands of the Government, but it would appear to me that because



of the peculiar position of our coal industry, and that the fiscal aid given must be in the form it is, that there should be some Control Board to take care of this after the war.

BY THE CHAIRMAN - To see how the money is spent?

A. Yes, and actually to allocate it.

C. I think Mr. Gordon was very fair about that, that if they were spending the money of the Dominion Government they should have something to say as to how it was spent.

A. But the United States have a greatly expanded capacity now and they will have a great deal to get rid of, and I imagine the Fuel Board should have extensive powers there.

BY THE CHAIRMAN - No doubt they will.

DR. BOYLE (continues brief)

### III TRANSPORTATION

Before the war it was customary to bank coal during the period when navigation was closed. This practice was beneficial in that it enabled the mines to work during the winter season, but because it necessitated two extra handlings of the coal it resulted in a reduction of the quality of output. Transshipping is bound to result in a deterioration of the quality of coal.

In the Island of Cape Breton we suffer greatly from an inferior railway service. Particularly is this due to the ferry service across the Strait of Canso. To this must be added a poorly designed roadbed between Sydney and Moncton. The associated Boards of Trade of Cape Breton County have informed us that they are presenting a brief to this Commission which covers all phases of this problem.

To prevent duplication of effort we refrain from repeating their evidence and arguments, but we wish emphatically to go on record as being decidedly convinced that the Communities that we represent deserve, and should have, improved rail facilities.

An improved railway would lessen the cost of shipping coal in the winter time to Upper Canada, and would





onable as to supply an improved product.

That is all I have to say about transportation and about a bridge across the Strait of Canso, but we are all for it.

BY COMMISSIONER MORRISON - You realize I suppose that we travelled over that road bed from Truro.

A. Yes, you left Truro in the evening and I suppose you slept well until you got to Sydney.

BY COMMISSIONER MORRISON - Seeing is believing.

DR. BOYLE (continues brief)

#### IV. BY-PRODUCTS AND RESEARCH

The people of the town of Glace Bay have given considerable study to the possibility of introducing industries for the manufacture of by-products of coal. They have given us several papers on this subject which we append to our brief.

As far as we can see the subject of by-products of the coal industry is primarily a matter of study and research. Every large Corporation which is progressive maintains a costly Department of Research.

The paragraph that I am about to read is rather unnecessary after Mr. Brown's testimony yesterday. I didn't know the steps that the Company had taken in this regard. I have been watching that for the past 20 years or more, and in other places I have advocated that such research should be carried on. I think under Mr. Brown's direction undoubtedly the Company will have a good Research Department, and therefore keeping that in mind, I will read on.

(continues brief)

We regret to say that the largest operator in this territory, the Dominion Iron and Steel Corporation, has no extensive Department. We also have in the Province of Nova Scotia some six Universities, and of their own initiative those Universities have done very little research into the problems of the coal industry. The Government of Nova Scotia has conducted some research into the problem of efficient combustion.





I believe one of the engineers is carrying on experiments in his own house, with his own furnace.

(continues brief)

This is to be commended and we recommend that it be extended. Such combustion problems are closely tied up with the problem of marketing, and marketing will be aided to a great extent if the industry, or the Universities, or the Government, initiates a comprehensive study of the problem of efficient combustion.

It is very often stated, as a reason for not opening new mines, that the quality of coal is poor.

By poor quality, the terms are mixed up. I was listening to the evidence here for several days and the term "poor quality" coal is often used. I think "poor price" would be better. If you can find a use for that particular kind of coal, then it is not poor quality, but it may be poor price.

(Continues brief)

To us it would appear that any and all coal produced in Canada is valuable if scientific study would show its proper use. The term "low grade coal" is a misnomer because the grade of coal manifestly depends upon the use to which it is put. It is clear that in this matter scientific study is sorely needed. We cannot expect the people who buy coal throughout the rest of Canada to conduct this investigation for us. We must do it ourselves.

Another subject for scientific research is the use of coal as a source of by-products. The advantage here is that the manufacture of by-products from coal would start new industries in Cape Breton County and would help to take care of the problem of unemployment. This is naturally a subject for intensive scientific research. It seems to us entirely unreasonable that such study is not being carried out in our Province. The agencies capable of doing this are the Corporation and our Universities.

BY THE CHAIRMAN - And the Government, of course?



DR. BOYLE (continues brief)

We would recommend that in their own interests the Corporation be urged to set up a Department of Research. (Well, as I have said, this has been done). We would also recommend that the Universities of the Province be asked to interest themselves in this problem.

In summation we may say that research along two lines is required: first, into combustion problems; second, into by-products which can be manufactured in the County of Cape Breton near the mines.

We would ask the Commission to give special attention to the briefs from Glace Bay concerning by-products which we put in as an appendix. We note among their contents a statement that four by-products formerly produced here - fertilizer, tar paper, cement and bricks - are now produced in Quebec from or with our coal.

BY THE CHAIRMAN - The fertilizer plant I think was not taken to Quebec, it was taken away down to Wellington County.

DR. BOYLE (continues brief)

#### SECTION IV

#### SUMMARY AND CONCLUSIONS

The basis of all our argument: is that the formation of the Canadian Federation has put us in an unfavorable trading position; that this Federation enables other industries to live at our expense; that we are a necessary national industry; that others therefore must make the like sacrifices that we do; that they are to maintain us if we are to maintain them. In saying this we do not ignore our own obligations; in fact we have stressed them.

We make one final request of this Commission, that it take into account the essential role municipal governments play in our communal life and to recommend the measures necessary that its beneficent influence be not curtailed. Our civic governments provide certain services without which our people could not survive. (And I would emphasize that I am here particularly to represent those civic governments, and that is the main





point in our thesis). In view of this we feel that the present Commission should regard it as part of its duties towards the coal industry to be deeply concerned with the fate of the oft-time small and struggling civic organizations which endeavor to cope with the fundamental needs of the miners who are its citizens.

The Provincial Minister of Municipal Affairs, the Hon. J. H. McQuarrie, recently stated, "Advantage should be taken of the present period to thoroughly overhaul the revenue systems of the municipal units..." Is it not within the scope of the present inquiry to study the conditions of the community life which the mining industry imposes upon its workers and to make such recommendations as the Commissioners think will improve their lot in life and their efficiency as producers.

Our towns are the schools where our Canadian citizens learn to live democracy; if our towns are too poor to teach them its ways, too cramped to allow them to practice them, too drab for them to appreciate it, then who should be surprised to see democracy rejected.

For these reasons we pray you to give the suggestions we have advanced the favor of your consideration in the light of your mature judgment.

BY DR. BOYLE - Now we have an Appendix to the brief, which contains submissions of the Municipalities of the County of Cape Breton, and perhaps I could just mention them briefly.

The first one is from the Municipality of Cape Breton and deals particularly with Broughton, Bras d'Or and Port Morien.

No. 2 is from the City Clerk of Sydney and shows how Sydney is intimately connected with the coal industry. It gives facts and figures of that.

No. 3 is from the Mayor of Glace Bay and contains a letter which he wrote asking for certain information, and I now put that as an Exhibit as an aid to the Commission.

BY THE CHAIRMAN - These are briefs from individual Municipalities?

A. Yes, they were sent to me.





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Q. And from this material you prepared your brief?

A. Certain parts of it.

BY DR. BOYLE - I want to put in as an Exhibit to Mr. Morrisons letter a statement of Mineral Industry Surveys, U. S. Department of the Interior.

EXHIBIT NO. 36 - Mineral Industry Surveys, United  
States Department of the Interior,  
Bureau of Mines. Dated Dec. 30, 1944.

BY DR. BOYLE - There is also a submission by Robert McAulay, he is pensioned now. He was for years Coal Buyer or Coal Inspector for the C. N. R. He has submitted a brief in which he speaks about the way in which coal openings have been made, etc.

BY THE CHAIRMAN - Is his Brief in this?

A. Yes, and I just call your attention to it. Along with his statement is a sketch showing the location of certain coal seams.

EXHIBIT NO. 37 - Sketch by Robert McAulay  
showing location of coal seams.

BY DR. BOYLE - The next brief has to do with by-products in Glace Bay, submitted by Mr. George O'Neil. The last paragraph I think would interest Mr. Morrison greatly. He says - "I would strongly recommend that the members of this Commission visit Scotland with our Chief Chemist at Ottawa to see what they have accomplished. I think what they have accomplished in Scotland can be accomplished in Canada.

BY COMMISSIONER McLAURIN - Dr., just to show you how intent I have been on it, I have read that.

BY THE CHAIRMAN - Are you suggesting that the whole Commission go?

A. That is the suggestion, not perhaps including the Secretaries and Counsel. The lawyers can stay home and do the work. The last submission is by Mr. Robert Orr on behalf of the Morien District, and he is attending a meeting of the Municipal Council downstairs and he is willing to come up and give evidence if the Commission so desires.



BY THE CHAIRMAN - Thank you very much Dr. Boyle for your brief. I think from many viewpoints it will be very important and very much add to the knowledge of the Commission. It may institute a good deal of research on their own part.

BY MR. FRAWLEY - We would now ask if there is anyone present to present the brief from the Citizens of Bras d'Or.

MR. JOHN BRODERICK TOOK THE STAND.

EXAMINED BY MR. FRAWLEY

Q. You live in the Bras d'Or community?

A. Yes.

Q. And you are here to present the submission of the citizens of Bras d'Or and surrounding community?

A. Yes.

Q. All right Mr. Broderick, will you proceed to read your brief.

EXHIBIT NO. 38 - Submission on behalf of the  
citizens of Bras d'Or and the  
surrounding communities.

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MR. BRODERICK reads brief as follows:

Mr. Commissioners:

This is a brief presented on behalf of the citizens of Bras d'Or and the adjoining districts of Alder Point, Point Aconi, Millville, George's River, and the South side of Boularderie. We wish to bring to the attention of the Commission one problem of local concern to these communities.

We have in this area considerable deposits of coal capable of exploitation. There are on the north end of Boularderie alone, approximately  $6\frac{1}{2}$  square miles of coal comprising about 30 million tons. In the Alder Point and Little Pond areas there is an additional 4 - 6 square miles and almost unlimited quantities of submarine coal.

This coal has been held under lease from the Nova Scotia Government by the Nova Scotia Steel & Coal Company, Ltd. since 1900. (This is a very conservative date, it was something before that) It is of a quality somewhat inferior to most of the coal mined by this company in Cape Breton and is located in shallow





seams, this adding to operation costs. Perhaps owing to these factors no sustained attempts to mine these seams have been made by the holders of the leases. Four pits were opened in this area, two by the Nova Scotia Steel & Coal Company, but each was abandoned after a brief period of operation, on the ground that the coal could not be profitably mined.

In 1914, one of these abandoned mines, the old Colonial, located in Bras d'Or was taken over by the Bras d'Or Coal Company and leases for additional coal areas were acquired from the Nova Scotia Steel & Coal Company on a ten cents a ton royalty basis to the latter. Operations have been increased at a fairly steady rate since that time. An average of over 90,000 tons a year have been mined, three or four hundred men employed, and \$550,000 a year distributed in the form of wages.

Following the development of this industry was an extensive community development in Bras d'Or and surrounding districts. Merchant, professional and farming classes emerged to supply the men working in the mine with services and primary products.

Considerable capital investments were made, and perhaps of more importance, investments of human hopes and human labor. Insofar as we know none of these investments are protected by special depreciation reserves.

In addition to these investments the coal industry also contributed to district indebtedness. During the depression years large amounts were paid for direct relief, much of this was paid to unemployed miners. Bonds were issued by the Municipality of Cape Breton, the payment of which became a direct charge upon the district that issued the relief. Many predominantly agricultural districts in the county did not incur these obligations. Insofar as Districts Nos. 10 and 4 are concerned, the payment of direct relief resulted in doubling the tax rate payable by property holders.

Any threat to the coal industry in Bras d'Or will endanger not only the livelihood of the workers directly engaged



in it, but also the capital investments made in all these communities and the ability of the districts to repay the balance of their relief indebtedness. We know that as in general depression spirals the decline of a rural community quickly acquires a cumulative momentum. When a number of farmers are forced out of business and off the tax rolls the burden becomes correspondingly greater upon the remainder, and this increase in the burden will coincide with a decreasing ability to sustain it - thus forcing others to the wall.

No one acquainted with conditions will doubt the dependence of Cape Breton farmers upon the local market created by the coal industry. Our conditions are such that farmers here cannot compete on equal terms with farmers elsewhere in Canada. They cannot export and survive. Even under normal pre-war conditions many farmers were unable to make ends meet by the sale of agricultural products alone. Many depended, and depend, upon the sale of Pit Timber to keep them out of debt. Today trucks operating from the Brad d'Or Mine travel up George's River to Barrachois and Boisdale, up the north and south sides of Boularderie and across the Bras d'Or ferry to New Harris collecting pit lumber and leaving vital supplementary income to the farmers. An aggregate of \$30,000 a year. This is in addition to the milk, cream, butter, eggs and vegetables consumed locally by three to four hundred miners and their families. Removal of these sources of income would be a crushing blow to the farmers in these districts.

This dependence of a large district and a large population upon the Bras d'Or industry is today brought into a sharp focus by the danger of its discontinuance. We are informed that the Old Colonial Mine will be unable to function for more than a year owing to exhaustion of coal available. The operators are unable to open a replacing mine because of the refusal of the Nova Scotia Steel & Coal Company to grant them further coal areas under conditions that will permit profitable operation.

This is a matter of very grave concern to the communities whose existence depends on the continuity of the coal





Industry. That industry has been established there, communities have grown up to house, service and supply its employees with food. Schools and churches have been built. Capital investment has been made by workers, merchants, landlords and farmers. Assets have been created. Any dislocation of the continuity of that industry will assuredly result in the depreciation of those investments and the destruction of many of those assets.

Such a dislocation is an imminent danger at the present time, in spite of the fact that there exists ample reserves of coal and a company willing and able to mine it.

This company is prevented from mining this coal by the holders of the leases, who have themselves, for the past fifty years, been unwilling or unable to do so, presumably on the grounds that they may require the coal at some undetermined future time.

In the meantime these communities will be sacrificed. In the meantime 125 employees of the Bras d'Or Mine, now in the Armed Services, in addition to many other boys from stores and farms, will return home to find their jobs gone, their homes valueless, and their prospects in life somewhat different from what they had been led to expect.

With reserves of coal on one section of Boularderie alone sufficient to maintain the present rate of operations for 300 years, how can we justify suspension of operations now? Should work be resumed in 15, 25 or 50 years, a new community will have to be built because the old one will have disappeared.

Surely this is consistent neither with justice, with efficiency, nor with sound planning. Surely it is indefensible that a private corporation should be allowed indefinitely to control coal leases that they do not operate to the exclusion of others that can and will add to the betterment of communities that depend upon that operation. Surely the far reaching rights that private corporations have acquired over resources owned by the people should also entail some responsibility towards the people.

In view of the urgency of the situation, we therefore recommend that one of the two following alternative proposals be acted upon at once.

1. That the holders of the leases be required to make a new opening within the next year, failing which,
2. Their lease for the Boularderie, Alder Point and Little Pond areas be rescinded and made available to any interests willing and capable of working them.

We feel that the present system whereby holders of sub-leases pay double royalties and also lose the depletion allowance is unfair and detrimental to the community.



M. S. HUNTINGTON. Examined by Mr. Frawley.

Q You are the mayor of the town of Louisburg?

A Yes sir.

Q And you are here to make a submitted to the Commission on behalf of the town of Louisburg?

A Yes sir.

Q And you have a written brief?

A Yes sir.

Exhibit 39 - Brief on behalf of the Citizens of Louisburg.

MAYOR HUNTINGTON: On behalf of the citizens of Louisburg, I want to express our deep appreciation in permitting us to be heard and for the attention you will pay to our representations, which are in addition to the general brief which has been presented by Dr. Boyle.

The historic background of Louisburg is well known to you gentlemen and it would be idle for me to trench upon your time in dealing with the history of this town. Suffice it to say, that no history of Canada is complete without reference to the part Louisburg has played. We feel that the importance of Louisburg in the national picture of our country has by no means vanished. Indeed, this port may well be made to play a vital role in the future industrial life of our country. I might say in passing that we would be most happy indeed if the members of the Commission would find time to pay a visit to our town. I am sure that to the Western members particularly, a visit through the Museum will be of the greatest interest. I shall be very pleased to accompany the Commission on their visit, should they find time to come to our town.

Shortly before the turn of the century, Louisburg began to grow into a thriving town. Men built homes and community institutions. The builders of the new Louisburg looked forward to an era of prosperity. A new pier costing approximately \$70,000, and a railway was completed in 1895, and monthly, thousands of tons of coal were shipped by the Coal Company through





this port. It was not strange to see upwards of twenty ships in port at one time waiting to be either loaded with coal or taking on bunker. The port enjoyed shipping throughout the whole year and there was sufficient employment summer and winter for our citizens. Young people felt that they had a stake in the community and settled down here.

About the year 1919 the whole picture of Louisburg began to change and in the ensuing years with the exception of a couple of summers, coal shipments were stopped during the summer months and drastically reduced during the winter season. Furthermore, after 1921, Louisburg which had, in addition to coal shipments, enjoyed a lucrative bunker business, lost this bunker trade. Due to the absorption of the Nova Scotia Steel and Coal Company by the Dominion Steel and Coal Corporation, this bunker business went to North Sydney. North Sydney had the advantage of a closer haulage from Sydney Mines to North Sydney as compared with that from Glace Bay to Louisburg. Louisburg was permitted to be relegated to a place of shipping activity by the Dominion Coal Company only when it was actually forced by circumstances to use it. Indeed, it is a notorious fact that even in winter months, coal ships are made to take chances with the ice and go elsewhere and this, in spite of the fact that insurance during that time is very costly. The attitude of the Dominion Coal Company towards Louisburg has been a most contrary one. I might add that the closing of the port for summer shipments in the year 1919 did not come about without the strongest of protest being voiced by the people of Louisburg and their Town Council. But although the Coal Company officials came here to listen to our protests, nothing came out of it.

Permit me to give the Commission a very short description of the harbour. It is about  $2\frac{1}{2}$  miles long and about  $\frac{1}{2}$  mile wide. It is protected from all sorts of weather--it being the only year-round open port in Cape Breton and one of the few on the Atlantic Coast. The harbour, as suggested above,



has an excellent shelter from all wind directions and is capable of accommodating large ocean-going freighters. It is a fact that the navy authorities have said that they can moor forty ships at one time in the harbour. The largest ship to enter this port had a net registered tonnage of 7,700 tons or approximately 12,000 gross tons. Shipments from this port ranged from fifty tons of bunker to 11,000 tons of cargo per ship. It is very strategically situated, being only four hours sailing time from the lanes used by ocean-going ships between American, Canadian and British Isles ports.

The charts published by the Department of the Naval Service of Canada says, "The charts of Louisburg do not mention ice conditions." Lloyd's Register says of Louisburg, "It is a safe harbour, good anchorage, open and free from ice all the year." And the St. Lawrence Pilot says, "Steam vessels resort to Louisburg throughout the year and navigation never ceases." Thus it will be clear to the Commission that Louisburg offers the only solution to water shipments of coal during the winter months. In passing I might mention something which will be of interest to the Commission but particularly to the Chairman. It was about the time that the Dominion Coal Company stopped summer shipments through this port that a Committee of the House of Commons, comprised of twenty-one members of Parliament, was appointed to recommend to the Government on the harbour in Canada best suited as a terminal for fast steamship lines. This Committee came to the unanimous conclusion that Louisburg was the logical port at which passengers and mail should be landed in Canada from fast ships. We have this information on the authority of the writings of Mr. J. A. Gillies who was a member of the House of Commons at that time. T. C. Warkman, who in those years was the agent of the London Salvage Association and who I believe now holds the position of Regional Chief for London of the Salvage Association for the North American continent, selected the port of Louisburg above Montreal, Quebec and Sydney as the place where essential port services should be established.





It has been said that Sir Newton Moore was deeply impressed<sup>d</sup> impressed with the natural attributes of Louisburg Harbour and had actually made plans of new shipping facilities which he hoped to see erected in Louisburg.

BY THE CHAIRMAN: Who is Sir Newton Moore? He was a former president ---

MAYOR HUNTINGTON: Of the Dominion Steel and Coal Corporation. (Continues):

The situation that exists in Louisburg today as regards the Coal Industry can be best judged by the fact that of the entire population, approximately only thirty-three men are employed during the summer and fall months as shippers and trimmers. During these months they work at the piers in Sydney and generally go to and from work by bus, although some of them board in Sydney. These few men are guaranteed a minimum wage of \$35.00 a week until the latter part of December. This past year, it was December 22nd and the year before it was December 14th. After that date they are put on day's pay and they have to depend on what they can earn until shipping begins in earnest from Louisburg, which may not be until the latter part of January, when shipping facilities elsewhere are impossible by water. During these few so-called active shipping months, the number of these men is enlarged by about seventy, which makes a total of only approximately one hundred workmen from our community. Approximately, only thirty-one of our citizens are employed on the Sydney & Louisburg Railway, all engaged in the transferring of coal. These railway men are similarly affected by the seasonal shipments of coal and during the summer months they are obliged to live in Glace Bay or elsewhere. Only one crew can remain at night in town, during the summer months.

We should like to emphasize the fact, which is even more conspicuous in wartime when speed is essential, that ships coming south-west of Louisburg from Canadian and American ports must travel approximately from 100 to 120 miles more by going



to Sydney, i.e. going back and forth, and thereby losing approximately ten hours. It is very disheartening to the people of our community and to this part of the Island to see these ships constantly going back and forth, passing us on the horizon. This applies equally to ships which carry a cargo of coal as well as to those which come to Cape Breton for bunker. Not even when congestion is caused elsewhere by wartime shipping conditions, is Louisburg used to relieve this situation.

What effect all this has had upon us can well be understood by the Commission. Louisburg had always prided itself on its record of thrifty citizenship. By careful and prudent living we have been able to show that our relief disbursements have been almost negligible. But the fact remains that the deliberate policy of the Dominion Coal Company has relegated us to a town of old historical ruins. Our children have to leave us because there is nothing here to keep young people or enable them to settle down and earn a livelihood.

BY THE CHAIRMAN: And perhaps a little might be said of the policy of the various Dominion Governments?

MAYOR HUNTINGTON: Yes, as well.

BY THE CHAIRMAN: I have in mind right now something that they could have done out there which I think would be in the national interest--to have established this naval monument they have across the harbour to an all-year-around port.

MAYOR HUNTINGTON continues: We are told in answer to our pleas that it is cheaper for the Company to take the coal by railway to Sydney and ship it from there, than it is to send it to Louisburg for shipment. We submit that in the year 1943 the Sydney and Louisburg Railway received \$220,007 under the Maritime Freight Rates Act and \$261,276 in 1942. In addition the railway was paid \$163,857 in subventions for the movement of coal in 1943 and \$178,881 in 1942. In view of this, it may be asked why cannot more use be made of this port? Surely, the subventions and subsidies paid to the railway should compensate it for the difference of what amounts approximately to a





ten-mile increase in haulage from Glace Bay to Sydney. We do not ask that shipments from Sydney with its splendid harbour during the months that it is open should be stopped. We do maintain, however, that it is possible for the company, particularly with the assistance from the Government, to maintain, as in former years, an adequate summer and winter shipment through this port, sufficient to completely change our economic outlook and help us in looking forward to the post-war era with hope.

BY THE CHAIRMAN: Are you suggesting that all this money was received and kept by the Sydney and Louisburg Railway? I mean to say that it was for them only?

A Well, I can't say, but that is the amount they received, according to figures which are general knowledge.

Q You have no information as to the amount they had to pass on to other railways who took charge of their freight?

A Oh, I don't know those figures at all.

MAYOR HUNTINGTON continues: We maintain that in modern industrial conditions no industry ought to be permitted to follow a policy which fails to take into consideration the welfare of the community which depends upon this industry either wholly or to some considerable extent for its existence. There is a direct relationship between the interests of a community and the decision or policy of such an industry. We believe that it is wrong that any important industry should be permitted to formulate its plans without paying some consideration to the people living in close proximity and who have come to depend for their existence upon that industry. If this is true generally then it surely is true of that undertaking which receives assistance by whatever means it may be from the public treasury. In the light of these remarks, we feel that the attitude of the Dominion Coal Company has been such as never to have considered what results its policy may have--and actually did have--upon our community when it decided to ship through our port only to a negligible degree.



If in addition to the great advantage Nature has kindly given to us, and the place which history has accorded us, we also had a measure of regard from the main industry in this part of the country, one might well speculate on the part that this town might yet play in the future life of our country.

Should it be suggested that the present time facilities are inadequate and during wartime difficult to improve upon, may we respectfully point out that we understand the Canadian Bridge Engineering Co. Ltd., an affiliate of the Dominion Steel and Coal, assembled and put together in Ontario in the short space of eight months, a pier much larger than the one in Louisburg. The erection at Louisburg of a modern coal pier which would simultaneously remove considerable of the handicaps to which the present one has always been subject, is by no means an impossible thing even in these days.

In short then, gentlemen,, we ask that the Commission consider our request that the Port of Louisburg be utilized by the Dominion Coal Company throughout the year for the shipment of coal by water to an adequate degree, and further that the present shipping facilities be either brought up to date or completely replaced by new equipment in order to handle the increased all year round shipments.

Respectfully submitted,

(Sgd.) M. S. HUNTINGTON,  
Mayor of Louisburg.

BY THE CHAIRMAN: The piers were put up in Louisburg in the first instance for the New England trade, when they supplied a great deal of that market?

MAYOR HUNTINGTON: During those early years there was considerable coal shipped to the New England States.

BY MR. FORSYTH: The Commission will understand that those references to the policy of the Company are matters that will have to be dealt with at some other time and I think they could best be dealt with in the whole than piecemeal and cross-examination of persons who are merely here in a representative capacity.





BY THE CHAIRMAN: I want to thank you very much, Mr. Mayor, for coming here. I know you are a true son of Louisburg with a very kindly interest in the town. Has it ever occurred to you what might be done to help out the situation in Louisburg, apart from saying that the Coal Company should use it more than they are using it, which is all right, but how under the present set-up?

MAYOR HUNTINGTON: Under the present set-up and under present conditions in the coal trade I suppose it is quite obvious they ship more than they produce probably at the port of Sydney, but during the winter months when we are the open port we feel that--I don't know; they may be shipping all the coal that they have available to go through Louisburg, but during the past several years there are quite large shipments going by rail.

BY MR. FORSYTH: As a matter of curiosity--and I am not criticising Mr. Huntington, I am just wondering--if your market is to the west, that is St. Lawrence points, of course winter shipments through Louisburg are not going to get up there. You concede that?

MAYOR HUNTINGTON: Not up the St. Lawrence. What I meant by that was shipments that come from westward of Louisburg, say Saint John and Halifax and United States ports. Now ships from ports there perhaps calling for bunkering or otherwise, we feel that Louisburg should be the port in which they could receive their bunker. I have talked this over many times with Mr. Kelley and we have argued it out and I know what Mr. Kelley's arguments are against it very well.

BY MR. FORSYTH: Of course in the end I suppose the place where the ship is going to bunker depends a great deal upon the ship?

MAYOR HUNTINGTON: Yes.

STEPHEN DALHANTY tenders:

Exhibit 40 - Submission on behalf of the  
Northside Credit Union Chapter



MR. DALHANTY: I want to make it plain that this submission just applies to the Northside Chapter alone and the purposes of the Chapter are two: to disseminate and promote co-operative education, also community programming, and it was in the process of community programming, where we attempted to get people to plan different things for themselves, that we discovered that there were certain obstacles. This brief may not bring out in definite terms just really what we mean, because it may be the only brief submitted that was written entirely by miners and I think it was typed by the "hunt and punch" system, and if there is any explanations that you desire as I go along please stop me and I will attempt to answer them.

(Reads submission): This brief is presented on behalf of the Credit Union members of Cape Breton North speaking through their voice, the Credit Union Chapter, which represents a membership of two thousand in five Credit Unions:

The Nickerson Credit Union located in Leitches Creek

The North Sydney Credit Union located in North Sydney

The Princess Credit Union located in Sydney Mines

The Florence Credit Union located in Florence

The Bras d'Or Credit Union located in Bras d'Or

Before putting forth our suggestions may we explain briefly the purpose of Credit Unions, the part they have played in the lives of our members and to the growth of our communities in general. In essence, the purpose of Credit Unions are threefold:

(1) To encourage thrift by providing a safe, convenient medium for the investment of the savings of the members.

(2) To promote industry, eliminate usury and increase the purchasing power of the members by enabling them to borrow for productive and provident purposes at a reasonable cost.

(3) To train the members of a society in business methods and self-government, thus bringing to them a full realization of the value of cooperation.





Through the instrumentality of Credit Unions numerous homes were erected, adding to the wealth of the individual and to the community. Cooperative Store and Fish Plants were financed by Credit Unions. The members have provided themselves with life, Credit Union savings, and loan insurance. We realize that any threat to the future of coal mining is a threat to all we have built. A threat against the hopes and ambitions of our members and to all the citizens of Nova Scotia.

We also realize the importance of this Commission and we sincerely hope that it will find a solution to the many problems confronting our industry. It is with this purpose in mind we attempt to place before you some observations and suggestions that will, in our opinion, help in some degree your tremendous task.

First, we suggest the Commissioners would investigate the possibilities of the Cooperative Movement as a means of eliminating some of the problems affecting our industry such as allowing the worker more of the necessities of life from the wage that the industry can honestly pay him.

Possibly I might draw that out a little more and say this, that we of the Cooperative Movement are of the belief that the workers are exploited as much in the economic field or at the point of consumption as they are at the point of production. It is the thought that the Chapter tried to express here that anybody who attempts to organize in the production end and neglects to see their obligation to organize on the consumption end does themselves, their industry and their community an injustice, inasmuch as if a man is organized to get a dollar he should be organized to get full value for that dollar. To illustrate, let me quote from memory from the British-Canadian Cooperative report for 1943: they returned to their members \$94,000. Now that meant this, that was \$94,000 that those members were returned. Now as we are trying to draw out here, we did that as an organization, and it was intended to bring to the attention of the Labor leaders and the Commission. We



know the influence the recommendations of the Commission will have, and any recommendations that they make and any reference to the possibilities of the Cooperative Movement we would like to direct them to the Nova Scotia Cooperative Union for their investigation. I would not attempt to go into the great possibilities or the philosophy of the Movement because it can be found at the Extension Department, who will explain it a lot better than I can.

(Continues brief): As a means of creating a better attitude between men and management, as a means of creating a greater sense of responsibility among the workers towards the industry as a whole. We further suggest that the Commission would investigate the possibility of coal mining being placed on a cooperative basis. Realizing this cannot be done successfully before an extensive cooperative education program would be promoted, we suggest that the Commission would recommend to the Government that a board be set up for this province, to act in conjunction with the cooperative leaders.

Meanwhile, we would suggest that the closure of three of our mines, namely, No. 4, No. 7 and the Jubilee, would be investigated, also the method of sub-leases where a company has to depend on its competitor for permission to operate, always under the shadow of having his lease terminated or not renewed. This method causes insecurity and discontent and reflects directly in the lives of our people. Citizens are unable to plan for the future, it undermines completely the basis of our society, the building of homes, churches and schools.

We suggest that for the present good of the coal industry and our communities in general leases that are not being worked and mines that have been closed would be taken over by our Government with a view to their operating them. If our Government deems this unwise they will offer leases and mines to companies who are willing to work them in direct conformity with the mining laws of Nova Scotia. We realize one of the greatest responsibilities of labor, management and government





is the conservation of coal.

We suggest that the mines now in operation on the North side of Sydney Harbour be investigated to determine if the proper developments are carried out to insure the life of these mines, the intention being that that investigation would not stop with the questioning of men who are called to the stand, be they under oath or otherwise, but that that investigation would take place by the experts available to the Commission, and they will visit those mines to determine in their opinion if the proper development works are being carried out.

We feel that closer supervision of coal mines by the government in the past would have avoided many of the vexing problems that now confront us, such as abandoned areas, high cost of production, mining questions pertaining to the safety of the workers, etc.

We make one suggestion that in our opinion would help. That the mine examiners who travel our mines daily would be taken from the payroll of the company and be placed on the payroll of the Mines Department. They would feel freer to report any malpractice that may be carried on by men and management.

In closing this brief we hope for the success of the Commission in obtaining the facts they desire to enable them to offer a solution for the coal mining industry of Canada.

BY COMMISSIONER MORRISON: You refer to mine examiners. Those are the Company examiners?

A That's right, sir, deputy mine examiners.

Q Well, in addition to that the Department of Mines have a district inspector of mines, have they not?

A Which to the practical miner's point of view is not necessary for such a close check or it is not practical or it is not working out as it should.

Q I haven't come to that yet. How often do you see them in the mine you work in?

A Well, I would hesitate to say that because I may do them an injustice.



Q I am not trying to tie you down to a day. What is the usual custom?

A I could see the inspector come into my part of the mine maybe this week and maybe he would be in another part of the mine for the following month and I wouldn't see him.

Q Don't these mine inspectors put a report out at the pit-mouth after they have been in so you can read it?

A Well, there is a sort of report there. It doesn't give you much to go on.

Q I suppose it deals with the condition of the air, supply of timber; a made-out form, is it not?

A In my opinion--I will express my opinion; it is open to question--the duties he would have to perform, the time he spends in the mine would not allow him to do that. That is why we made that recommendation.

Q But they do carry out these investigations?

A That's right. They do.

Q And he does place a report where everyone who works in the mine can see it if they are interested enough in seeing what he reports?

A That's right.

Q And I imagine that if you found that he was not diligent in his duties that you would make a noise about it?

A But it would not have the same effect as our suggestion here.

Q I am not finding fault with your suggestion but I want to know what is the fact now?

A They visit the mines occasionally and report.

Q And the manager generally knows when they are coming, I suppose?

A Well, I haven't got the information from the manager.

Q Sometimes it is like the affair of company coming to visit? There is an extra pie and the front doorstep is dusted off a little more. I just want to know how you do things in Nova Scotia. I have been away a long time.





A Well, evidently by the picture of the coal mines down here we don't do things in a very good way.

Q Well, I am going to reserve my opinion about that.

EXAMINED By Mr. Frawley.

Q Are you employed in one of the mines on the North side?

A The Florence mine.

Q Are you a producer or non-producer?

A I am what you call a brusher.

Q How long have you been employed in the mine?

A Since 1921 I think it is.

Q And in addition to your work in the coal mine you are an officer of this Credit Union Chapter?

A That's right, sir.

EXAMINED By Commissioner McLaurin.

Q What do you make? What do you get paid?

A Well, I hesitate to tell you that. I am afraid it would make a reflection on the wages of the rest of the miners.

Q Don't hesitate.

A Have I got to answer that? What I am making in the coal mine?

Q I hear that everybody is depressed. I just thought I would like to ask you what you made.

A Well, to tell you the truth I can't see any point, and you will excuse me, in saying that. What I am scared of is this, Judge Carroll, that if I said--and I would not speak only truthfully--what I made in the mine it is possible that it would create an opinion that that was the average rate in the mine, or the ordinary wages in the mine. My place now is abnormal. If you understood the conditions of my place ---

Q I understand quite a bit of it. I have seen lots of places in mines right across this country.

A I am running into in my place--the type of work I am doing--and I can make certain wages and then my place may become abnormal and give me a break.

BY THE CHAIRMAN: Commissioner McLaurin wants to know what you make. What do you make per month, for example. This is not



a question that is secret.

A I will put it this way, if you say by the month. Let me see now. I would say for the month of December I made about \$135.

BY COMMISSIONER McLAURIN: Now is that your gross earnings or your net?

A That would represent my net earnings.

Q Income tax had been deducted before that?

A It is not very much. I am a man with a family.

Q Just answer my question. Income tax had been deducted?

A One per cent.

Q And your check-off?

A That's right, sir.

Q Medical dues, Union dues?

A That's right, sir.

Q So you would have in your hands for the month of December \$135 that was your money with Mr. Ilsley paid off? You know what I mean when I say Mr. Ilsley? You wouldn't have any more income tax to pay?

A That's right.

Q How many days did you work in December? There is Christmas, the holiday. I take it you wouldn't work 'as long that month as November?

A Well, I hoped you wouldn't see that point but you did. That's right.

Q Now what did you make in November?

A November was lower because I was on day's pay, sir.

Q You can see that you are not starving to death. You are not one of the depressed people?

A Not at all, sir.

BY MR. FRAWLEY:

Q You said \$135 was your own, but what was the amount of your deductions?

BY THE CHAIRMAN: What difference does it make after Commissioner McLaurin brought out what this man got?

COMMISSIONER McLAURIN: You could get it from the payroll.

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A 50 cents a week for the doctor, 30 cents a week for the hospital. There is the Union and then there is 1% of the total for tax.

BY MR. COHEN: If it is of any assistance to my friend, it is hoped that the Union brief will give as complete a picture as possible with respect to the wage situation and so on, with respect to gross and net.

BY MR. FRAWLEY: Now, Mr. McCall, you are going to file a further exhibit?

Exhibit 41 - Memorandum re Certain Coal-Bearing Areas Subleased by Nova Scotia Steel and Coal Company Ltd. to Bras d'Or Coal Company Limited.

T. L. McCALL: I thought that I would give the story of the sub-leasing of Nova Scotia Steel and Coal Company areas to the Bras d'Or Company, and I am doing this in my capacity as chief mining engineer for the Nova Scotia Steel and Coal Company Limited. (Reads Memorandum):

In 1919 the Bras d'Or Coal Company in its working of the Toronto Mine encroached on the lease holdings of the Nova Scotia Steel & Coal Company, and for reasons then verbally discussed but not recorded, the Bras d'Or Company was given permission to extend its deep workings a distance of 300 feet inside the Scotia lease.

I call it the Toronto Mine, but it is also known as the Colonial Mine.

BY MR. FORSYTH: It is the same mine that Mr. Broderick was speaking about?

MR. McCALL: Yes, the same mine on which we have heard evidence. (Continues Memorandum): Without securing further authority the Bras d'Or Company continued its workings until they had advanced into Scotia leases by more than 1250 feet, thereby committing a further trespass of 950 feet.

Since then the Bras d'Or Company has made repeated applications to the Scotia Company and has obtained additional sub-leasings, the grounds for those demands being that Bras d'Or



holdings and sub-leases contained nothing but coal unworkable because of reduced height and rock intrusions, or coal unsaleable because of high-ash and sulphur content. In such applications the Bras d'Or Company has sought assistance from public meeting and from the Miners Union in bringing its applications to the attention of the Provincial Government. Last year similar pleas on behalf of the Bras d'Or Company were made to the Emergency Coal Production Board.

While the Nova Scotia Steel & Coal Company has been reluctant to lessen its coal reserves, which are not greater than its plans for the future require, it did, under pressure, consent to granting certain sub-leasings in 1927, pointing out however that the Bras d'Or Company had not worked out previously sub-let areas, as they should have done before asking for additional leasings, a contention the Scotia Company has maintained in respect to subsequent leasings.

Such additional leasings have always been asked for extension of the workings of the Toronto Mine. The limited use made of the sub-lease of 1927 and the seven subsequent and additional sub-leases granted ostensibly to increase the working area of the Toronto Mine, is shown by the following statement.

<u>D A T E</u>	<u>AREA</u>	<u>AREA UNWORKED BY TORONTO MINE AT AUG. 31, 1944.</u>	<u>PERCENT UNWORKED BY TORONTO MINE</u>
2 Jan./27	480 acres	153 acres	32%
22 May /30	480 "	335 "	70%
10 July /36	80 "	- "	-
25 Aug./38	80 "	7 "	9%
25 Aug./38	22 "	- "	-
2 Jan. /40	160 "	160 "	100%
2 Jan. /40	160 "	138 "	86%
1 May /42	480 "	478 "	99%
Total	1942 "	1271 "	65%

BY COMMISSIONER McLAURIN: I don't just follow that.

MR. McCALL: On the first lease they secured an area of 480 acres.

Q And they still have 153 acres to work?

A Yes.

BY MR. FRAWLEY: As of August 31, 1944, having had it under lease since January 1927?





MR. McCALL: Yes. (Continues): The Toronto Mine was opened from the outcropping in an area held by the Bras d'Or Company. The seam which it works locally known as the Collins is disturbed throughout and contains coal consistently of relatively inferior quality over the whole area explored by workings. The seam underlies the Sydney Main Seam by some 510 feet in which last named seam are the workings of Scotia's Florence Colliery. Overlying certain sections of both the Florence and the Toronto Mines is Keating's Pond, which is connected with the ocean. As an ordinary matter of prudence, Scotia in the later subleases provided that the extraction in the Toronto Mine should, in this section, be limited to  $42\frac{1}{2}$  percent and the pillars left standing, a provision approved by the Department of Mines by whom all subleases must be ratified. This was a very necessary safeguard to protect Florence Colliery from a possible influx of water which would probably result were Bras d'Or permitted to extract the coal to the point of bringing on a ground movement which would form openings direct to the sea bottom. It was a precaution rendered all the more necessary because of the fact that just previous to the date of the leases affected the percentage of extraction carried on by Bras d'Or had been so great as to bring about a "crush", that is, a ground movement crushing the coal pillars and extending through the overlying strata to the surface. Scotia viewed this occurrence with grave concern. Fortunately it had taken place in a section not overlain by Florence workings which were consequently unaffected. It, however, did bring very much to the fore the disastrous possibilities which a similar ground movement brought about by unrestricted extraction under the Florence workings could have on that colliery. In addition to the possibility of permitting an influx of water into Florence workings if such a "crush" occurred in submarine areas there is also the fact that in years gone by the Florence workings in this locality had been brought very close to the outcrop so that any cracks going through these old workings to the surface even on land areas



would have been seriously detrimental to the ventilation of the present workings of that colliery.

Bras d'Or objected to being restricted to an extraction of only  $42\frac{1}{2}$  percent but it was pointed out to them that this was standard practice of both Scotia and the Dominion Coal Company under similar conditions, a practice approved by the Department of Mines. Scotia rightly insisted on it as a provision of the sublease dated May 1942.

Later in that year the bankhead of the Toronto Mine was destroyed by fire. In the following December Bras d'Or notified Scotia that as a consequence they proposed abandoning the mine completely.

Scotia drew attention to the fact that regardless of earlier subleases the last was estimated to contain in itself some 1,100,000 tons of recoverable coal of which only 9,000 had been mined and asked for information as to Bras d'Or's future policy. The Bras d'Or Company replied that their proposed abandonment of the Toronto Mine was not a result of the fire, but that, because of the extent of their workings, they were now experiencing rising costs and also the coal was deteriorating in quality. They asked to lease the Jubilee Colliery areas and to open a pit north of the Toronto Mine. They also stated that restriction to  $42\frac{1}{2}$  percent extraction made mining an economic impossibility.

It was evident from this that the real reason for Bras d'Or wanting to close down was rising costs. Scotia advised that the haul in the Toronto Mine was much less than that in Florence Colliery. I might at this point say that I believe in the evidence that was submitted it was stated that the haul in the Bras d'Or Company mine was about 3 miles. Scaling the length to the face of the deep from the mouth of the slope in the Bras d'Or working I find it is  $2\frac{1}{4}$  miles. In Florence Colliery the main haulage is now 3 miles distant from the surface opening, and then after you have got to the face of the main deep you have got to travel into the levels for a distance





of 1 mile, making a haulage of 4 miles, so that in the Bras d'Or Company the length of the haul is under that in either Princess or Florence collieries.

Scotia advised that the haul in the Toronto Mine was much less than that in Florence Colliery, that there was no evidence showing that the quality of the coal had deteriorated from what it had always been, nor had the seam thickness lessened; that the  $42\frac{1}{2}$  percent extraction was a standard to which Scotia itself had been subjected, and that leases of further areas could not be considered except such as might be to the dip of the present workings when the areas now under sub-lease had been worked over.

If you refer to the back of this statement you will see a plan or a blueprint which shows these various sub-leases. It will be noticed on the left-hand side of the plan the Colonial deeps, and from there on the sub-leases are shown. This could be studied.

The Bras d'Or Company did not accept these representations and in February 1943 applied for sub-lease of an area of three square miles adjacent to the areas already sub-leased to them, their desire apparently being to open up crop mines so as to extract the most easily accessible and cheaply worked coal. At the area applied for contained the outcrops of three seams affording the only feasible entry thereto in this region, one therefore necessary to Scotia as a reserve for openings for future workings, the request was refused.

And I might perhaps say at that point that in the evidence that was given by the Bras d'Or Company they stated that the Alder Point was the only reserve of coal available, the one they were asking for.

BY MR. FRAWLEY: This is the Alder Point that you are referring to at the bottom of page 4, "They applied for a sub-lease of an area" and so on?

MR. McCALL: Yes, that comes into Alder Point district.



MR. McCALL continues brief: Finally on March 23rd, 1943, a meeting was called in the Department of Mines at Halifax attended by the Minister of Mines, the Deputy Minister and representatives of the Bras d'Or and Scotia companies. At this meeting Bras d'Or reviewed its demands as stated above; Scotia said that it could see no just reason why Bras d'Or should be given further areas from which they could extract the most easily accessible coal and leave only a damaged and highly inaccessible property for Scotia's future workings.

Presumably as a result of this meeting and of further agitation on the part of the Bras d'Or Company including public meetings which passed resolutions supporting Bras d'Or's demands and forwarded them to the Emergency Coal Administrator, Mr. W. J. Dick, a consulting mining engineer from the West, was brought to Cape Breton to report upon the whole question.

It should be noted in passing that similar resolutions from the Sydney Mines Town Council and the Local Union of Florence Colliery were also passed but to the opposite effect, viz. that further sub-leases to the Bras d'Or Company would be detrimental to the interests of the public dependent on the operation of the collieries of the Scotia Company.

While the report made by Mr. Dick is not available to the Scotia Company, it is understood that he could find no reasons justifying the Bras d'Or Company's demands, and recommended that the existing lease arrangements remain unchanged.

BY MR. FRAWLEY: Was Mr. Dick brought down by the Nova Scotia Department of Mines or the Coal Controller?

A The Department of Mines.

Q Of Nova Scotia?

A I believe.

BY THE CHAIRMAN: He was here I think for the Emergency Coal Administrator.

A Was he?

BY MR. FORSYTH: It would seem to follow from your statement.

BY THE CHAIRMAN: The reason I say the Coal Administrator is





that they were trying to say that they would supply more coal.

A Yes, but I think the Coal Administrator communicated with the Department down here and the Department arranged for Mr. Dick to come down.

MR. McCALL continues: In 1944, without obtaining permission as required by the Mines Act, the Bras d'Or Company started boring operations on the Scotia Company's leasehold, but desisted after having been notified to cease operations.

BY COMMISSIONER MORRISON: They actually set up a diamond drill or that sort of thing on your property?

A On Scotia's leasehold.

Q Was it an error of judgment?

A Well, perhaps it was, sir, but I have my doubts.

Q I can't understand how people go out and mine coal in Nova Scotia on other people's property.

A Well, we asked them to stop and they did stop.

BY MR. FRAWLEY: Would they have to apply for a permit to the Department of Mines in Halifax for that?

A Well, you have to get a permit to search, but we already held the area.

MR. McCALL continues: It is now affirmed by the Nova Scotia Steel & Coal Company as lessee of the areas applied for by the Bras d'Or Coal Company, that the last named Company's demand for additional sub-letting are unwarranted and that granting of these demands would be unfair to the Scotia Company for the following reasons:

1. In the sub-leases already held by the Bras d'Or Company there is estimated to be upward of ten years production of coal of similar quality to that produced normally by this Company.

2. That long haul and resulting increase in costs follow in natural order the ordinary extension of workings and that this is a disability under which the Scotia Company has labored to a much greater degree than the Bras d'Or Company for many years.



3. That to the extent that the Scotia Company has already granted Bras d'Or Company the right to extract certain seams from its areas it has already infringed upon its reserves.

4. That in view of uncertainties connected with submarine mining and the Scotia Company having all its eggs in the form of reserves of high grade coal in this one submarine basket, it is very necessary and essential that Scotia Company should have reserves of coal to fall back upon.

BY COMMISSIONER MORRISON: When are they going to start hatching them?

MR. McCALL: Later, sir. I think Mr. Gordon will sit on them and hatch them. (Continues):

5. That granting Bras d'Or rights to all seams contained in the three mile area latest demanded would be an extensive infringement on Scotia reserves as this area affords the only means of entry to outlying unworked coal in the Scotia leasehold.

6. That it is eminently unfair to the public, the Province and the investors in the Scotia Company to allow the Bras d'Or Company to work only the most easily accessible coal, putting Scotia in the position that nothing but very distant coal remains for it to work in later years.

BY MR. FRAWLEY: Mr. McCall is filing, supplementary to the brief he has just read, copies of certain correspondence between Bras d'Or Company and Scotia Company.

Exhibit 42 - Copies of Correspondence  
between Bras d'Or Coal Co. Ltd.  
and Nova Scotia Steel & Coal Co. Ltd.

MR. McCALL: It was requested during the hearings by the Bras d'Or Company that I table correspondence in connection with restriction of output.

BY COMMISSIONER McLAURIN: Oh yes, the 700 tons a day, is that what this is?

MR. McCALL: Yes. The history of this is that back somewhere about the year 1930 when we started some of the sub-leases to Bras d'Or, and when the coal industry was in a





pretty depressed condition, there was a gentleman's agreement made between the Scotia Company and the Bras d'Or Company that if they were granted those sub-leases they would not increase their output beyond what they were then mining, which was approximately 700 tons a day, which I think was a very natural arrangement to make, considering we were competing in the same market. There was nothing written of that; it was just a gentleman's agreement. In July 1941 the Bras d'Or Company wrote to us, or wrote to me as the chief mining engineer, saying that:

"Our present coal output is nearing the 700 tons per day mark.

"We would like to know if you have any objection to our increasing our output above this amount.

"Owing to the National Emergency we are pressed by the different Government Departments for large shipments.

"Yours very truly,

"Bras d'Or Coal Company Ltd.

"(Sgd) Geo. B. Burchell,  
Manager."

Well, I am mining engineer and as that was a policy matter should be dealt with by somebody else than a purely mining engineer, so I forwarded a copy of that letter to Mr. Dwyer, who was the president of the Nova Scotia Steel & Coal Company at that time, and I will just read that letter:

"Dear Mr. Dwyer:

Attached is a copy of a letter from Mr. George B. Burchell of the Bras d'Or Coal Company advising us that his output is nearing the 700 tons a day mark and also that he wished to increase his daily output above this figure.

For your information I might say that when the matter of extension of subleases was applied for by the Bras d'Or Company we had a gentlemen's agreement with them that they would not exceed a 700 ton a day output.

This arrangement was made to try and prevent them at that date from infringing on our markets. Of course at this time nobody would dream of holding them down to this figure if they can produce more coal, but I would only rescind this agreement for the period of the war and attached you will find a copy of a suggested reply.

On matters of engineering I have been dealing with these people direct, but as this is a matter of policy I feel it would be in better keeping if the letter came from you. Hence all this.



Mr. Dwyer wrote to the Bras d'Or Company on the 19th of July, 1941:

Dear Mr. Burchell:

Your letter of 15th July concerning increasing your daily output, which letter was addressed to Mr. T. L. McCall, has been forwarded to me to deal with.

Since Canada needs all the coal that can be produced within its own borders, we can have no objection to you increasing your output over and above the 700-ton mark for the duration of the war - but once peace is restored we would expect you to revert to our previous understanding that your daily output would not exceed 700 tons per day.

Would you kindly confirm receipt of this letter.

BY COMMISSIONER McLAURIN: Is Mr. Burchell here?

MR. FRAWLEY: Yes.

BY COMMISSIONER McLAURIN: He will be available this afternoon if we want to call him back?

MR. FRAWLEY: Yes.

12.15 - COMMISSION ADJOURNED

AFTERNOON SESSION

The Commission reconvened in the Court House, Sydney, N. S., at 2.00 P.M.

DR. F. W. GRAY: I should like to make a statement.

In the main brief of the Corporation, on page 64 it was stated with reference to the traffic on the railways that: "Large as is the tonnage of coal that was carried by the Railways in 1940 when compared with previous standards, it can be assumed that a larger tonnage could have been carried, had not the railways been pressed by unusually large wartime traffic."

I would like to supplement that by saying that considering the load that the war has placed on the Canadian National Railway, its track, equipment, and especially upon its employees, we would like to supplement this reference to express our full appreciation of the good work the Railway has accomplished in moving coal and steel and general freight





in and from the Atlantic Region. We consider that this need of praise is richly merited.

BY THE CHAIRMAN: But you would say too that if we had better railway connections, put it generally, between here and Moncton at least, that the obligations that I think the railway has in these days would I think be better fulfilled?

DR. GRAY: Oh, I think so. I think the railway has done well with the accommodation.

T. L. McCALL. Examined by Mr. Frawley.

Q You had finished what you wanted to say in connection with the Memorandum Exhibit 41?

A Yes.

Q I think I just have one question and it is just to ask you for a little explanation. On page 2 of Exhibit 41 you have a table the result of which seems to be that out of a total of 1942 acres sub-leased to Bras d'Or there remained unworked as of 31st August 1944, 1271 acres, which in percentage was 65%?

A Yes.

Q Now look at the last item. There is a lease there, the 1st of May 1942, covering 480 acres and 99% of that is unworked?

A Yes.

Q That I presume is because it is being worked now?

A No, it is not being worked now. That is flooded now, I believe.

Q And it left 99% of the area unworked?

A Yes. That one I referred to in the brief as containing possibly over a million tons of recoverable coal, of which I believe I said 9,000 had been worked.

Q You had some reference to that, did you?

A Yes.

Q Where?

A Page 4, the first paragraph: "Scotia drew attention to the fact that regardless of earlier subleases the last was estimated to contain in itself some 1,100,000 tons of recover-



able coal of which only 9,000 had been mined and asked for information as to Bras d'Or's future policy." That's it.

Q What is the situation there? Did they meet with some extraordinary event that they have abandoned that property after only having mined 1% of the reserves?

A No, there was nothing extraordinary there, sir. As I pointed out in the brief it would appear that it was rising costs caused them to abandon that, and they would like to have got into another territory where the openings weren't so far away and under such cover and open up a new mine.

BY COMMISSIONER McLAURIN: It was the abandoning of the mine that resulted in flooding?

A Yes.

BY COMMISSIONER MORRISON: As chief engineer for the Scotia Company you have right of access to these mines at any time?

A For inspection purposes.

Q And I presume that you take advantage of that right at different times?

A Periodically.

Q And this table that you have given us, is that as a result of actual inspection made by you or made for you by one of your engineers?

A These are the results from surveys.

Q Conducted by Scotia?

A Yes.

Q It is not information supplied to you by the Bras d'Or people?

A No, these are from our own plans of the Bras d'Or Company.

Q And this acreage that is unworked, 1271 acres, does that take into account the areas which are left for safety purposes in the mine?

A No sir. No areas as such left for safety purposes. There are pillars left in but that would not be counted in that. I might say that the seam through there is badly cut up by intrusions of stone and in some places it has become unworkable.





Q And some of this area that you refer to is actually unworkable?

A Is actually unworkable. We cannot say to what extent, but when they abandoned the last lease they had in 1942 the seam was quite workable; the height was the same and the quality the same.

Q In fairness to both sides, these unworkable areas that you refer to, had your company been operating that mine and acting on your advice you would likely have taken the same course that these people had taken?

A We would not have granted them new sub-leases had we considered that there were still large bodies of coal unworked in their old sub-leases.

Q So that there is nothing wrong with leaving some of those areas unworked?

A Except that now they are working some of them again. The quality of the coal was claimed to be very poor in the upper levels and they are back there working on those levels. Some of those areas, there is no question they were unworkable, but some exploratory work may have been done perhaps.

Q And as a result of the exploratory work and the market conditions they are working <sup>some of</sup> them over now?

A Yes, they are working now in the top areas, places that had been abandoned before.

BY MR. FRAWLEY: It is clear from what you said to Mr. Morrison there is 65% of the workable coal still unworked?

A No, I can't say what definitely might be workable in those areas that has not been worked.

Q Perhaps we don't understand each other. I mean 57½% could not be touched. That is what I mean when I say unworkable.

A 57½?

Q The production was limited to 42½%?

A Oh no, that is something that is quite different.

Q I want to be clear about that.

A That is not the extraction of the seam. We put a clause in



the lease limiting the percentage of extraction of coal in that area in order to have pillars left in situ, on the spot, for the support of the overlying strata so that there would be no movement of the overlying strata which might cause a break from Keating's Pond into Florence workings and so flood Florence workings.

Q So that when you say 65%, it is 65% of the coal has not been worked at all?

A 65% of the area have not been worked at all.

BY COMMISSIONER MORRISON: And all that seam is unworkable by Bras d'Or or Scotia or Dosco or anybody else?

A Oh yes, it is unworkable, but in the last lease they did not run into those areas and they had abandoned it. That is why we refused the lease.

BY MR. FORSYTH: What would you say about an area like the third one from the last (100% unworked)?

A Well, they never got around to that one. It is possible they might go in on the upper levels into that yet.

BY MR. COHEN: I wondered if Mr. McCall now being available if it would be putting him to any inconvenience, and if the Commission would mind, if I asked just a few questions with respect to a couple of briefs that have been put on the record before I arrived here? I didn't know that had been done when I examined Mr. McCall on Monday.

BY MR. FRAWLEY: I think after Mr. McCall finishes his complete submission ---

BY MR. COHEN: Oh, pardon me; I didn't know.

Exhibit 43 - Memorandum on Fatal Accidents  
in Mines, Dominion Coal Co. Ltd.

BY MR. FRAWLEY: Before we go on with the next exhibit Mr. McCall now hands me for the Commission a plan showing the collieries of the Dominion and Old Sydney Companies.

Exhibit 44 - Plan showing the collieries of  
Dominion and Old Sydney Companies



MR. McCALL: This, gentlemen, is a few notes we prepared on accidents in mines following a request that was made by Dr. Boyle:

The following tabulation lists the frequency of fatal accidents since 1929 in the Cape Breton Collieries of the Dominion Coal Co. Ltd., in all the coal mines of the Province of Nova Scotia and also in some seventy-three coal mines of the United States.

FATAL ACCIDENTS TO WORKMEN IN COAL MINES

No. of accidents per million short tons mined

<u>YEAR</u>	<u>Dominion Coal Co. C. B. Collieries</u>	<u>All N. S. Coal Mines</u>	<u>73 U.S.A. Coal Mines</u>
1929	3.57	3.38	3.19
1930	2.85	4.65	3.46
1931	4.27	5.27	2.85
1932	2.20	3.07	3.09
1933	2.40	5.12	2.50
1934	4.64	4.04	2.67
1935	1.92	4.40	2.60
1936	2.33	2.45	2.52
1937	3.74	3.78	2.68
1938	2.35	2.98	2.52
1939	1.77	5.48	2.19
1940	1.83	1.68	2.61
1941	2.08	3.33	2.08
1942	4.20	4.16	2.14
1943	6.23	6.45	2.07 Est.
1944	3.87	-	1.81 Est.

I think it was that drop in the United States mines and the persistency of the figures in the case of the Dominion Coal Company that caused this question to be asked, asking for an explanation.

The information with respect to the Dominion Coal Company Collieries is taken from our own records; that with respect to the coal mines of the Province from the Annual Report on Mines issued by the Provincial Government, while the figures on the U. S. A. mines are from a publication of the National Safety Council of the United States. In this last instance reference is had to the performance of only 73 of the U.S. A. coal mines because only that number report to the National Safety Council. The Company keeps in close touch with that





Council through its Superintendent of Industrial Relations. It can be safely stated that the U. S. coal mines reporting to the Council are in the most progressive and highly mechanized group in that country. Consequently the accident frequency as shown in the above tabulation for these U. S. A. mines is in all probability much better than would be the case if figures were available for all coal mines in the States.

The tabulation shows that there is a definite trend in the United States towards a decrease in the number of fatal accidents per million tons of coal mined while generally both in Nova Scotia as a whole and in the Cape Breton mines of the Dominion Coal Co., the accident rate on the tonnage basis is more or less constant although fluctuating from year to year. It is understandable that the yearly fluctuations in our collieries as well as in all Nova Scotia coal mines are bound to show up to a much greater degree because of the fact that they are based on a tonnage considerably smaller than is the case of the United States mines, the large tonnage in the latter case having a tendency to smoothen out irregularities at individual mines.

The one single feature of mining in our collieries which causes the largest proportion of accidents is falls from roof, rib or face, which accounts for 32 to 33% of our accidents. In the United States the claim is made that "haulage" is the most dangerous mine job. Haulage accidents with us average 25% of the total.

It has already been stated as evidence before this Commission that the Cape Breton Collieries working at an average depth of cover of 1440 feet are at a distinct disadvantage in comparison with the U. S. mines where the average cover is under 400 feet. It is not therefore to be unexpected that "falls" should be the largest factor in our accident record, for the greater depth under which our workings are carried on causes much greater stresses and strains in the roof rock as well as in side and face pressure than is the case in the U. S. A. mines



with such comparatively and actually shallow cover.

In the United States mines with their intensive mechanical loading the tons produced per man per day average 4.46 long tons, a figure which has steadily increased since 1929 with the growth of mechanical loading. In the pre-war years the tons per man for the Dominion Coal Company averaged 2.31 but from 1939 onwards there has been a steady decrease to the present low level of 1.52 tons per man for the year 1944. This of course means that the exposure to hazard whilst decreasing in the U. S. mines during the period under review has increased in our Cape Breton collieries since 1939. At the present time exposure to hazard in the U. S. mines is only one-third of what it is in our Cape Breton collieries.

The only fair basis on which to make a comparison is that of exposure to hazard. The following tabulation prepared on that basis and referring only to the seventy-three U. S.A. mines mentioned above shows that, with respect to these mines (which, as stated above, probably have preferred rates) on the average the accident frequency in the Cape Breton Collieries is just about two-thirds that of the U.S.A. mines referred to.

STATEMENT SHOWING NUMBER OF FATAL ACCIDENTS  
PER 10,000 MAN-DAYS WORKED IN COLLIERIES

<u>YEAR</u>	<u>Dominion Coal Co. C. B. Collieries</u>	<u>73 Mines in U. S. A.</u>
1929	.089	.134
1930	.072	.151
1931	.104	.127
1932	.054	.140
1933	.064	.104
1934	.122	.113
1935	.046	.117
1936	.063	.115
1937	.096	.124
1938	.060	.122
1939	.048	.109
1940	.049	.134
1941	.046	.108
1942	.095	.113
1943	.122	.104
1944	.070	-

Averaging that over the period, as I said in the previous paragraph our accident frequency is just about two-thirds of that in the States.





While on this subject it might be well to mention the Dominion Coal Company's practice in respect to Accident Prevention.

Every Colliery Manager, Underground Manager and the whole supervisory personnel of the Collieries are constantly on the qui vive to prevent accidents.

In addition the Company in its Cape Breton Collieries maintains a staff of four inspectors in its Safety Department whose sole duty is to travel the mines daily, note any unsafe practice or condition and get such corrected. The Field Force of the Mining Engineering Department, numbering six, also spends its time travelling the collieries and reports any unsafe practices or conditions that they may see.

Every week "Safety Meetings" are held at each colliery at which accidents are reviewed with the officials, the cause ascertained, if possible, and conclusions arrived at as to the best possible means of preventing a re-occurrence. These meetings are quite frequently attended by the Superintendent of Industrial Relations and members of the Safety Inspecting Department in an attempt to keep uppermost in everyone's mind the absolute need to do their utmost towards Accident Prevention. Posters with the same object in view, are prominently displayed at the Collieries and campaigns conducted through which the collieries with the best record in prevention of accidents are recognized.

I might say for two years in succession we have won the Ryan Trophy, which is presented for the best accident record of any colliery in Canada.

The Company is a member of the Nova Scotia Accident Prevention Association and also a corresponding member of the National Safety Council of the U.S.A. The N. S. Association employs a Travelling Field Officer who frequently visits the colliery districts.

The Provincial Government is of course keenly interested in the question of safety in mines and under the direction of the



Department of Mines maintains a staff of highly qualified Deputy Inspectors in all Colliery Districts to whom is due much credit for accident-prevention work.

The Company greatly regrets the occurrence of an accident to any of its employees and I can assure the Commission that we are doing everything we can to prevent them. We welcome any suggestion from any interested parties which may help us to reduce the number of accidents in our mines.

BY DR. BOYLE: This question was posed by myself and I suppose I should say a word about it. Naturally every accident costs you money, doesn't it?

A Yes.

Q And naturally therefore it is to your interest to prevent accidents?

A Looking at it from that angle, yes.

Q I did not suggest at any time, in my questions or otherwise, that you weren't doing your best to prevent accidents. It just occurred to me that perhaps we might recommend something to the Commission that might prevent further accidents. I know of course that those things are inevitable. As a matter of fact I remember being down in the mine once and I saw a hole in the roof and I asked a fellow there, "What's that?" "Oh," he said, "that's a mass card," meaning if it had fallen on top of a man it would kill him. Those things are beyond anybody's help. Your defence of your accident prevention business is rather unnecessary. As I have said, it interferes with your mining operations if an accident occurs. I was wondering if there was anything we could possibly do, particularly through those management-labor committees, get them together. You have, there an excellent opportunity. Is there anything we could possibly do to help prevent further accidents?

A That is just exactly what we are trying to find all the time.

Q I wonder if we could use this Commission to help us? Is there



any legislation you would like to have?

A I don't think you can legislate accidents out of existence.

Q So many men get hurt doing things they should not do.

BY MR. FORSYTH: Not only in the mines.

A I think more accidents happen in the home than anywhere else. Actually statistics show that.

Q In your first table here you have noted those figures. The fact still remains that they are decreasing in the States?

A Yes.

Q If it is true, as you argue, that that is because of the greater output per man, well of course my argument falls to the ground, but it is a rather peculiar and rather difficult thing to understand that their rate is continually falling.

Are those figures which I gave you the other day for all mines in the United States?

A It was you that gave them.

BY MR. FORSYTH: If you take the average of 73 mines and attempt to compare them with one mine I don't know that you are making a very fair comparison.

A We took the figures of 73. We didn't have anything else available.

BY DR. BOYLE: Well, I hope the Lord will bless you in your good work of stopping accidents, anyway.

A Well, we are trying to, sir.

BY THE CHAIRMAN: Your table on page 4, doesn't that indicate that your accidents are going down in equal proportion at least to the accidents in the United States?

A Well, our figures fluctuate considerably. We have got a small tonnage.

Q But I mean to say, taken on the basis of that table, which seems to be a logical basis, your mine accidents are decreasing I would say in at least equal proportion to those 73 mines in the United States?

A I think they are going down too. If you take 1940 where we had .049 and in the States they had .134. There is one-third





there, and the next year we were about one-half the accident fatality they had in the States. If we can get into mechanization as we would like to I think it would assist, and also if people would be in a little bit less of a rush it would help the accidents too.

Q Dr. Boyle's thesis, as I understood it, was indicating that the rate in the States was going down proportionately better than yours. As I take it--I may be all wrong--doesn't the table on page 4 indicate that the proportion is perhaps in your favor?

A Oh, I think it does, yes.

BY DR. BOYLE: I beg your pardon, Mr. Commissioner. I think that the figures published by the Government of Nova Scotia are to be taken before all others.

BY THE CHAIRMAN: I agree with that, but you are taking them on a different basis. You are taking deaths per million tons and Mr. McCall has put in another table on a different basis.

DR. BOYLE: Of course those things all are to be taken into account--I said that in my brief yesterday--but I would point out the fact that they are continually falling in the States. What I rise for is to say that Mr. MacDonald, Board Member for the New Waterford district, says he would like to have an opportunity to take to the Commission at a later date.

BY THE CHAIRMAN: Oh yes.

EXAMINED by Mr. Frawley.

Q You speak about the mines in the United States that report to the National Safety Council?

A Yes.

Q And that is why you took the 73?

A Yes. We are a corresponding member of the National Safety Council and they supply statistics.

Q There are, as the Chairman points out, two ways in which to estimate and to record the fatal accidents. One is per



million short tons. Is that the way it is done by the National Safety Council of the United States?

A I think they list them both ways.

Q They do recognize the method which you use on page 4?

A Yes. Of course if your tonnage per man is comparable in your mines the million short tons is a good basis for comparison, but where your tons per man vary, then I don't think it is a fair comparison to use the million tons. You have got to use the exposure to hazard.

Q I think that you do find on a per million tons mined that your record is a bit up, isn't it?

A Oh yes, certainly, but our tons per man are much lower than the States.

Q And so in perfect fairness to yourself you have considered the other method?

A Exposure to hazard.

BY COMMISSIONER MORRISON: You are aware that the record of 73 United States coal mines do not reflect the accident rate in the United States of America?

A No sir. I suggested in my paper that they probably had a higher standard. If you like, I will try and obtain the figures for all but I had not, in the time at my disposal, an opportunity of obtaining it.

Q I think it would be very interesting. I have had occasion to look them up and the United States record is not one, in regard to accidents in minds, that we should be too proud of.

(Page 731 follows)





BY DR. BOYLE - Those figures in the United States are in the record given by the Department of Mines of Nova Scotia. If you have the same opinion of the Department of Mines that I have, perhaps you will not accept the figures.

BY COMMISSIONER MORRISON - I notice that you collected some other figures from the Department of Mines.

BY MR. McCALL - In the brief that was presented yesterday, and this morning, by Dr. Boyle, he had one statement in here, page 22, which I don't think is fair to the Department. "It is the general impression among our people, and the Commission will understand that this statement is incapable of proof by the ordinary citizen, that the Mines Department has to all intents and purposes abdicated its functions." Now Sir, I, by my calling, have had some experience with the Department of Mines for over a quarter of a century now, and so far from abdicating, I think the Department of Mines is showing great progress in the exercise of its authority and control. It is true we have our clashes now and again on opinions. I have plans to present and they don't approve of them, and we have our arguments and change them, but we come to a decision finally that is right to both parties, and this "abdicate", I cannot understand that. I am afraid that the person who wrote that cannot have had much dealings with the Department of Mines.

BY THE CHAIRMAN - Didn't Dr. Boyle change that word "abdicate" to something else?

BY MR. McCALL - The Department of Mines is most ably represented by the Hon. R. D. Curry, and they have a most progressive Deputy Minister of Mines, Dr. Cameron.

BY MR. FRAWLEY - I don't think the word "abdicate" was changed.

BY THE CHAIRMAN - From Alberta, I believe.

MR. McCALL - Yes, and he administers his department very efficiently indeed.

BY COMMISSIONER MORRISON - He is a Western outlaw.

BY MR. McCALL - Yes, and he has his Chief Inspector of Mines, and his Deputy Inspectors, very efficient. Mr. Casey is the



Chief Inspector, and we get a lot of help and assistance from these Deputy Inspectors on problems that we have in mining, and far from abdicating, they are on the go all the time.

BY THE CHAIRMAN - I think Mr. Frawley will tell you that he got marvelous assistance the first time he was here, from Mr. Casey.

BY DR. BOYLE - Since the matter was brought up, and as it has been one of the fundamental basis of our brief, I am anxious to say a few words about it.

BY THE CHAIRMAN - Unless you have some evidence to produce, - I did clash with you to a certain extent on that statement yesterday.

BY DR. BOYLE - Well the Commission understands directly where we went for that material for our brief.

BY THE CHAIRMAN -mYes, from the public.

BY COMMISSIONER McLAURIN - A kind of Cape Breton Gallup Pole?

DR. BOYLE - I said I was ready to produce a man to talk directly on that question, if you want him.

BY THE CHAIRMAN- We will get him, but not just now. I think we would be prepared, so far as one member of the Commission is concerned, to say we would be very glad to pay the expenses of that man to Halifax. That is the proper place for him to make his submission.

DR. BOYLE - He will speak on only one point though. I think the best thing for us is to leave that in the hands of the Commission. We are looking for production.

BY COMMISSIONER McLAURIN - You havn't left anything with me because aI have not heard anything but hearsay; not any evidence.

BY THE CHAIRMAN - I consider it the duty of this Commission to investigate, and it is their duty to get the evidence. Where there is a statement made and we require evidence to substantiate that, I consider it the duty of this Commission to go and get it. Because when we came here to organize the towns and municipalities on the question of the place that coal has in the economic picture of Nova Scotia, we appealed to all the towns, and they got you to prepare their brief. We never suggested or proposed





that you people should bring in evidence, and if you had any statements to make, it was the duty of this Commission to get the evidence and see whether your statements were properly founded or not.

BY DR. BOYLE - In other words this Commission is not acting according to the norm and standard of a court of law?

BY THE CHAIRMAN - No.

BY COMMISSIONER McLAURIN - Here is a charge made against the Department of Lands & Mines, a very serious charge. There is a limit to whether this Commission can take up everything in your brief. We have a Commission Counsel, and if you have any creditable person who supports a statement, get in touch with the Commission's Counsel, and if there is any warrant or foundation to the matter, we will give it consideration, but we are not going to take the initiative of investigating all the unsworn statements made to this Commission.

BY DR. BOYLE - I understand that perfectly and I bow to it.

BY THE CHAIRMAN - But we will bring to the attention of the Mines Department your charge.

BY DR. BOYLE - And I will bring to them my substantiation of it.

BY MR. FORSYTHE - I thought as you said this Commission will not comply with the norm and standards of the Court of Law; nevertheless, persons interested in this matter, and against whom, or about whom hearsay evidence or hearsay statements are made, will be able to rely upon it that they will not be convicted on the hearsay.

BY THE CHAIRMAN - I am not so sure about that.

MR. FORSYTHE - That is what I would like to know.

BY THE CHAIRMAN - If the hearsay is corroborated by the opinions we gather around - in a Court of Law you lay everything before the court. We are gathering up some evidence ourselves which will not come before the public; it is the worst kind of hearsay, and is not evidence in a court of law. That is enough said about that.. I was charged in making a report in which it was charged there was no evidence for the foundation of that.





There was lots of evidence, and I made myself quite clear in the opening days that I was going out and got evidence if I thought we should have it, and I would accept it. I made a report on the relationship that existed between men and operators in a certain place. That was never before the Commission except by one witness, but I satisfied myself and went out with both operators and men.

BY MR. FORSYTHE - All I am contending is, and I think it is a submission I should make to you, that is that no person interested before this Commission against whom charges are made of any kind whatever, will have findings made against them without at least having an opportunity of discussing it.

BY THE CHAIRMAN - That is different. But you say these people should produce the evidence. They are only gathering this thing up, and I think it is the best thing in the world that people should come here with their complaints.

MR. FORSYTHE - Certainly if a man comes and makes a charge here -

BY THE CHAIRMAN - We investigate it.

MR. FORSYTHE - Yes, and if the thing seems to be worthy of investigation you carry on further and get the best information you can about it, and I well can see if you were restricted to the technical rules of evidence that you would not be able to get any evidence. But I think that anyone who has findings made against them should have an opportunity of meeting them.

EXAMINATION OF MR. McCALL BY MR. COHEN

Q. Mr. McCall, I am sorry to have to get your mind back to one or two exhibits filed earlier in the proceedings. I take it that you have copies with you. Looking at the document described as "Memorandum on Physical Conditions and Development of the Sydney Coal Field". It is entered as Exhibit No. 15. Would you take a look in the first instance at page 7 of that document?

A. Yes.

Q. And at the moment I am trying to follow the reference made towards the end of the page to the time spent, you say "a total of not less than one hour and fifty minutes, an average of all Dominion Coal Mines, is taken up in travelling during each shift."



you fix that at an hour and fifty minutes?

A. Yes.

Q. That would be there and back I take it?

A. Yes.

Q. And the time is calculated from what point?

A. From the surface to the working face and back to the surface.

Q. That is from the time he gets into the shaft I suppose?

A. Yes.

Q. How do you arrive at that average?

A. That is a weighted average for the different collieries by actual timing to see how long it does take to walk in and to be travelled in to the different working sections.

Q. When you talk about a weighted average, what do you weigh it by? What are the factors you take into account to arrive at an average in a thing of that sort?

A. You have a certain section that employs so many men, and another shorter section in the same mine employing fewer men. You don't just take the average of the long and short, but the number of men by the time it takes.

Q. Then the number of men becomes the factor you use in weighing your average. Is that it?

A. Yes.

Q. Then turn over to the next page and take a glance at the table there. I suppose the number of men could be indicated opposite each of these collieries and put in the first column?

A. If the Commission would like that done it can be. Is it a question of doubting the figures?

Q. Oh no, but I don't think it gives as complete a picture. You have one situation here, No. 16, and I just take that at random, in which the working time is averaged at 25 months, and transportation I take it (it says transport) is 38. I would like to know how many there are in respect to those items. You have the particulars or you could not arrive at your average.

A. Yes, but they vary on the different shifts. You have to take one shift to deal with that.





Q. What did you take when you arrived at the average of 1 hour and 50 minutes? All. I am suggesting is that the table be supplemented by the figures you used in order to arrive at the weighted average?

A. I will supply them if they are necessary.

BY MR. FRAWLEY - I suppose if Mr. Cohen needs it to complete his understanding of it.

BY MR. McCALL - We will give it to him.

BY MR. FRAWLEY - We would not be able to make any use of it at this sittings.

BY MR. COHEN - I was not suggesting that it be furnished at this sittings, or I am not saying that I need it in order to understand it.

BY COMMISSIONER McLAURIN - Let us leave it that the figures be left with you Mr. Cohen, and then if, at some later date, you wish them on the record, we will leave that to you.

BY MR. COHEN - Thank you very much.

BY MR. FORSYTHE - I take it that Mr. Cohen or anyone else will not ask for figures that are not absolutely necessary, because these things all take time to do, and the Operating Staff here have plenty to do without going over those figures again, but if anything is absolutely necessary we will furnish it.

BY COMMISSIONER MORRISON - Kept at the irreducible minimum.

BY MR. FORSYTHE - Yes, because we have had documents come in and that is the last of them.

BY MR. COHEN - I can assure the Commission that I will be pleased to ask for the reasonable minimum; I don't know that I can get down to the irreducible.

EXM. BY MR. COHEN (continued)

Q. Now then of course the miners spend some time in changing before he gets into the shaft?

A. I have not included that.

Q. And changing again before he leaves the colliery premises?

A. Yes.

Q. You seem to be somewhat amused about it Mr. Forsythe. But the fact remains that he spent 1 hour and 50 minutes to go to



and from, and in addition he must change twice. And you passed a remark before Mr. McCall, that person should not hurry about getting away from their work.

BY COMMISSIONER McLAURIN - Let us keep at one thing

BY MR. McCALL - I have not included the change time.

EXM. BY MR. COHEN (continued)

Q. And there is that additional time spent by the worker, that I indicate?

A. If you count that part of the shift.

Q. I didn't suggest that. But it is part of the 24 hours of the day, part of his time?

A. Yes.

Q. And rather than burden you with that we will make our own calculations.

BY MR. FORSYTHE - I don't think that that remark is called for.

MR. COHEN - My friend asked for it.

BY MR. FORSYTHE - One man takes a certain time to change his clothes, and another man takes more time, and surely no one would expect a Chief Engineer of the Dominion Coal Company to establish averages of that, and if it has to be brought in, my friend will have to bring it in. But I don't think it adds very much to that particular question to say something about what I said about it.

BY MR. COHEN - Let us say that my friend does not make remarks on it.

BY COMMISSIONER McLAURIN - And will you not make any?

BY MR. COHEN - Well I will try and restrain myself.

EXM. BY MR. COHEN (continued)

Q. Now would you look at page 10 if you don't mind, Mr. McCall. You make a statement there at the opening of the paragraph - "About the year 1927, a careful study of all the conditions surrounding submarine mining was begun."

A. Yes.

Q. And I take it, by this Company, by your Company?

A. Yes.

Q. And has that study been finished?



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A. It was completed at that time.

Q. That is, it was begun and completed in 1927?

A. A careful study was begun.

Q. And I asked if it had been completed?

A. And I answered yes.

Q. Then I asked you when?

A. No. The study was completed in the year 1931.

Q. And would there be any objection to making that study available to the Commission?

A. None.

Q. May we take it then that that will be produced?

A. Most of it has been produced in this.

BY COMMISSIONER McLAURIN - Probably we could do the same thing again, that they will let you see it.

BY MR. COHEN - All right.

EXM. BY MR. COHEN (continued)

Q. Now there is a statement on the final page of that particular Exhibit, the last sentence of the first paragraph, in which you say: "The Capital Expenditure involved in such an undertaking will be tremendous, but will eventually have to be faced."

A. Yes.

Q. That relates to the Capital Expenditure referred to earlier in the paragraph about developing submarine areas? Other than saying that it will be tremendous, can you give us some approximation of the amount involved?

A. It would run into millions of dollars, but I can't give you a close approximation of it yet, because there is a good deal of planning to be done before you can begin to give a close approximation of it.

Q. I am not trying to tie you down, because you are still on the research, but five millions could be said to be millions, and seventy-five millions could be said to be millions. Could you give us any approximation?

A. Ten to twenty millions.

Q. Well that gives us the minimum and maximum.

A. It is just a guess.





Q. It is an estimate, I take it?

A. No, it is not.

Q. Not in the technical sense of the term. It is a calculation that you feel you are able to voice?

A. It is in the future, and you don't know how things are going to go in the future.

Q. But not like a guess that I might make where I know nothing of the industry, and you know everything.

A. I wish I did.

Q. It is a guess based on what you know about the mines?

A. It might be.

Q. Now in the paragraph preceding, in the last sentence where you say: "The economic aspect is altogether different from that of pure engineering. It will set the limit to which the field will eventually be worked." I take it you are referring to the question of markets which were discussed earlier in the week, when you talk of economic aspect?

A. No, not the marketing. It is the recovery of the coal.

Q. The market aspect having regard to the cost to you in recovering the coal and setting it on to the market, so to speak?

A. The cost of recovering the coal.

Q. And making it available?

A. That is it.

Q. That is what you mean by the term "it"? You say "It" will set the limit?

A. The economic aspect.

Q. Now I hope I have a correct reference to this brief, I have it indicated as No. 18 "Memorandum on Coal Reserves". Would you mind just looking at the first paragraph of that brief, and I would like to call your attention particularly to the phrasing of the first sentence, and perhaps I might read the sentence and we can have the record clear on that point. You open the brief by stating: "The only reserves of high quality coal available to the Dominion Coal Company Ltd. are those remaining in the submarine areas seawards of the present workings, the single exception being the area at Langan, which is being held for a new colliery when



such is required."

A. Yes.

Q. Now I am inquiring about the term "when such is required". What is that pointed at?

A. I think very much what it says, when such is required. You might have a colliery go out of existence and want to replace it.

Q. That is what I want to know. Do you there merely indicate the possibility of opening up something to take the place of something else either closed or depleted, or does it also indicate the possibility of extending the total volume of production, or which?

A. It could be applied in both senses.

Q. In what sense is it used here?

A. What it says.

Q. But as you indicate, it can be applied in both senses, and I would like to get your statement as to the sense in which you used it?

A. I used it in both senses.

Q. Then when you say "when such is required", you mean either to take the place of something abandoned or depleted, or to fill an expanding market, if there is an expanding market which you can fill and sell to?

A. Perhaps you will recollect that I made a statement on that point previously, which you will find in the records.

Q. You mean the one you returned with after lunch one day?

A. Yes.

Q. We have that in mind. And having that in mind, your language "when such is required" relates to/a mine <sup>replacing</sup> closed down and depleted and taking care of an extended market if you are able to fill the needs of that market?

A. If we judge it is prudent to do so and can raise the necessary capital.

Q. Now would you follow me on page 2, if you don't mind, and again the first paragraph, the opening sentence reads as follows:

"The above estimated tonnage of reserves must not be confused with other figures dealing with coal reserves as the estimates





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given in this memorandum refer to what might be classed as developed resources."

A. Yes.

Q. Do I take it that that term "developed resources" describes the reserves set out in the calculation that appears at the end of the Exhibit headed "Estimated Reserves of coal of good quality"?

A. That is correct.

Q. That is what you mean by "developed reserves"?

A. Yes, what may be classed as developed reserves.

Q. Those are the reserves that you refer to in your language on page 2 as things that might be classed as developed reserves?

A. Yes. They are not developed but they might be classed as developed reserves.

Q. That is total 42,800,000 plus the additional figures shown below?

A. Yes.

Q. Have you the table there?

A. Yes.

Q. And then you show an additional total of subsequent items of 42,250,000?

A. Yes.

Q. That are developed reserves?

A. Yes, what might be classed as developed reserves.

Q. What do you contrast that to since you draw a distinction between the reserves indicated on the calculation and totalling the two figures that I have given, what do you contrast those reserves with? What are the other reserves, and what they might be classed as?

A. That is "not to be confused with other figures dealing with coal reserves", is that what you mean?

Q. Well you give this calculation of reserves a very distinct characterization by saying that might be classed as developed reserves?

A. Yes.

Q. How would you class the reserves that you would not class as developed reserves?



A. Undeveloped reserves.

Q. And can you give us any indication as to those?

A. On going through this brief you will find these are mentioned in places. Some of them where we have no development at all, we can't put in estimates of tonnages on at all.

Q. I beg your pardon?

A. Where you have an undeveloped reserve, you cannot put a definite tonnage on your estimate.

Q. So your undeveloped reserves are an unknown factor, as to number of tons and quality, etc.

BY COMMISSIONER McLAURIN - Or, I suppose, existence?

A. Yes, that is correct, even existence of them. If you will read through this brief thoroughly I think you ~~will~~ find out that we have gone over all the areas where we considered there might be any reserves of coal, and where we could give tonnages we have done so.

Q. And where you are not able, you say there is probably coal there of which you cannot estimate the quantity?

A. No. But we have a pretty shrewd idea as to their quality.

Q. Would you indicate to me, you are probably more familiar with your own document, take for instance the item "other reserves" on page 7 - "There are other reserves of coal, but as the crops occur moderately close to the shore limit and the seams dip under the ocean, the continuance at depth is at present an unknown quantity."

A. Yes.

Q. You don't suggest that there is anything dubious about the existence there at least of some undeveloped reserves.

A. Well we cannot tell. We could tell what is under the land area, but not what is under the ocean area.

Q. I am not suggesting that you can estimate, or approximate, but that certainly points to the existence of something, the quantity of which you are unable to estimate?

A. Certainly.

Q. As differentiated from a situation where you would have to say there might or might not be coal there?



A. Yes.

BY COMMISSIONER McLAURIN - That is not a developed reserve as I understand it?

BY MR. COHEN - That is an undeveloped reserve.

EXM. BY MR. COHEN (continued)

Q. I take it that the 13,000,000 tons of workable coal mentioned on page 5 are included in the calculation that appears at the end of the brief?

A. The  $3\frac{1}{2}$  million tons?

Q. No. You refer to 13,000,000 tons. The third line on that paragraph - You say: "The only seam below the Gowrie which shows any sign of promise is the Spencer seam. This seam has never been worked, but has been prospected by means of voreholes, proving approximately 13 million tons of workable coal." Has that been included?

A. No.

Q. That is not included in your developed resources?

A. No.

BY COMMISSIONER McLAURIN - Why? You know it is there.

A. Yes, we know it is. It is 2' 10" in height average.

Q. You are treating it as being an uneconomical working?

A. Uneconomical at present.

CROSS EXM. BY MR. COHEN (continued)

Q. Now would you examine the paragraph that appears (at least in my copy of the Exhibit) at the bottom of page 3, and I will read it: "At present there is no known method of determining the depth of cover, or quality of coal of this remote seaward area. That is one problem which if it could be solved would be followed by the second problem of the very large expenditure involved in shaft sinking on the land area and driving tunnels to intercept this seam at the assumed point some two miles out to sea." Now has there been any planning or calculation, or estimate of any kind been carried on in connection with the item referred to in the paragraph I have just read?

A. Yes, the idea has been, shall we say played with, more from





an academic point of view than anything else. I can supply you with the figure on that.

Q. When you are supplying the study that you completed from 1927 to 1931?

A. Yes.

Q. Again on page 4: "Nos. 21 and 22 collieries have completely worked out all the coal between the two outcrops, but to the north of the old Gowrie workings and in the neighborhood of the Atlantic collieries it is estimated that there may be some 3½ million tons of recoverable coal in the land areas."

A. Yes.

Q. I take it that has not been included in the developed reserves?

A. No.

BY COMMISSIONER McLAURIN - Why?

A. Coal of distinctly lower grade than we have been in the habit of mining hitherto.

EXM. BY MR. COHEN (continued)

Q. Having regard to that answer to the question of the Commissioner, I call your attention to the fact, the reason you gave in the document itself is "Such steep inclinations require changes from customary district practice in the recovery of coal". Nothing about inferior quality?

A. Read it please before you make this statement; go on and read it.

BY MR. FORSYTHE - The point is this. This witness has a paragraph here, and I think it is only fair, I suggest that when Counsel is putting a question to his witness, he should read the document before he puts it. Because there is no doubt that the quality of the coal in No. 22 is discussed in this submission and right on that page. And it is hardly fair to put it to this witness that he didn't mention it.

BY MR. COHEN - I think on the contrary that it gives the witness a chance to say whether he did mention it.

BY COMMISSIONER McLAURIN - All Mr. McCall has to do is refer him to the paragraph.

BY MR. FORSYTHE - I take exception to anyone saying there is



something not in a document until he has found out.

EXM. BY MR. COHEN (continued) - I referred to the paragraph and not the whole document. I will examine it with the witness.

Q. The paragraph in the exhibit in my hands reads, and I have read the first sentence, but I will re-read it: "Nos. 21 and 22 collieries have completely worked out all the coal between the two outcrops, but to the north of the old Gowrie workings and in the neighborhood of the Atlantic Collieries it is estimated that there may be some  $3\frac{1}{2}$  million tons of recoverable coal in the land areas. The seams on the northern flank of the syncline are highly inclined and pitch up to 43 degrees, and all of the above tonnage lies in this northern flank."

BY COMMISSIONER McLaurin - That has been changed to "most of".

BY MR. FRAWLEY - It is "most" of the above tonnage, just leave out the "all".

BY MR. COHEN - (continues reading) "Such steep inclinations require changes from customary district practice in the recovery of coal."

MR. McCall - Carry on.

BY COMMISSIONER McLaurin - Mr. McCall you direct his attention to the part of the brief in which you estimate that the coal is uneconomic.

BY MR. McCall - I talk about the North Atlantic in which it is estimated 7 million tons. They all refer to the same seam. You have a list at the head of the collieries that work this seam, Dominion Nos. 21 and 22, Old Gowrie and North Atlantic. We talked about Old Gowrie, and now North Atlantic.

EXM. BY MR. COHEN (continued)

Q. Well the question that you spoke about when you talked to the Commission, arises out of the fact that the witness touched on a question that I didn't ask about at all.

A. "In the North Atlantic Collieries, it is estimated there might possibly be seven million tons of coal to be worked. In these areas the height of the seam has declined from 5' 10" as mined in No. 22 Colliery, to 4' 10" and this latter height includes a clay band six inches in thickness which made its appearance in





the seam about two feet above the pavement."

Q. Have you included that seven million tons in what might be classed as developed resources?

A. For the operating collieries and for that reserve colliery. That is the estimated resources of the whole sea frontage.

Q. What is the estimated resources of the whole sea frontage?

A. This table here.

Q. I merely asked if this seven million tons was included in what might be classed as developed reserves?

A. I said no. (continues reading) "Similarly the ash and sulphur contents in No. 22 Colliery were 8.6% and 3.06% respectively. The average analysis of several samples taken from Atlantic Collieries are shown below, and can be compared with the average analysis of the present Dominion output." And we compare the analysis there.

Q. Is that the point at which you say you touch in the question of quality?

A. Yes, that is it.

Q. Would you take a look at the next page where you are dealing with the Spencer seam and giving its average height and an analysis of the coal. You then go on and say: "This seam would appear to yield a better class of coal than the Gowrie seam, but the thinness of the seam is a serious factor when considering it as a commercial proposition."

A. Yes.

Q. I do suggest to you that that is rather a general statement. When you say it is a serious factor, just what have you said? How serious is it?

BY COMMISSIONER McLaurin - Pretty serious, is it not?

EXM. BY MR. COHEN (continued)

Q. I don't know. Is it one that can be overcome, or what is the nature or proportion of the factor? Is it something that can be at all off-set by anything else? You just say "the thinness of the seam is a serious factor".

A. Yes. You have a seam there 2' 10" in height. As it was



explained when you were not present, our miners here are accustomed to thick seams, and they do not take kindly to working in what we call a thin seam of coal.

BY COMMISSIONER McLAURIN - And you would have to move a lot of rock, would you not, at the pit head?

A. Yes.

BY MR. FORSYTHE - What height do you have to get to work at the face?

A. Well we are working some 3' coal now, but we have to brush the face.

Q. Yes, but to what extent?

A. That raises it to 4' or 4' 6".

Q. Would you have to do the same with the 2' 10"?

A. We would have to brush there, to have followed the same principle as we are doing now on the 3' seam, but it is so unprofitable to do it.

EXM. BY MR. COHEN (continued)

Q. On page 7 you say in the opening paragraph under the heading Nova Scotia Steel & Coal Co., you say: "This Company holds coal leases on the north side of the Harbour and has subleased a certain number of them to Old Sydney Collieries who operate Princess and Florence Collieries." Are they reserves considered at all in the calculation at the end?

A. Princess and Florence?

Q. Yes?

A. They are included in that tabulation at the bottom end of it.

Q. Those are the last ones?

A. Yes.

Q. Now then when you say at the bottom of the paragraph that follows - "There are no means of determining along what line of boundary the Harbour seam may thin except by persisting with development so long as the seam is workable. This is what is being done."

A. Yes.

Q. That of course would not be a factor that would be included



in the things that might be classed as developed reserves?

A. Yes, I have taken that in there. Assuming that the boundary follows as stated, then the reserve will be as shown there.

Q. As shown in the calculation?

A. Yes.

Q. That is where you reach your forty-two million?

A. That is correct.

Q. Of recoverable coal going on for 65 years?

A. Yes.

Q. You say that is part of your calculation?

A. Yes.

Q. Then on the next page, and I think it is your last - "The Hub Seam which contains reserves of good quality coal on the south side of the Harbour is represented at Cranberry Head near Princess Colliery by a series of thin seams, at least eleven in number. Boring upwards from the Harbour seam has shown this split-up condition of the seam as persisting in submarine areas to a point 12,000 feet north east of Cranberry Head. It is believed that the splits of Hub seam come together in the Boularderie Island area of the Stubbart seam. There may be a substantial reserve of submarine coal in this vicinity".

A. Yes.

Q. "But nothing is known of the nature of the Stubbart seam as it proceeds seawards from its outcropping across the tip of Boularderie Island." That is not included in what might be classed as developed reserves?

A. No.

Q. Now have you any fixed criterion by which you determine what is, or what is not, coal of a quality that should be mined or should not be mined?

A. In the way of a standard, you mean?

Q. Yes. I mean throughout the document.

A. That is the quality of the coal you are referring to, not the height?

Q. Taking both factors and combining them, Have you any fixed





formula to establish whether operations should be carried on or you should halt?

A. We are mining coal of a certain quality at present, and if any big variation takes place in the quality of the seam, we would consider the matter.

Q. But in the course of considering it, have you any formula by which you determine at a certain stage whether your conclusion should be positive or negative, or does that deal with factors outside of the mine?

A. It is pretty difficult to make a statement on that, a number of factors have to come in.

Q. I suppose your market would be one of them?

A. Yes, very much so.

Q. And the varieties that could be disposed of in the market?

A. Yes.

Q. Just the last phrase again in this brief, in the final paragraph, and I take it that you have it before you?

A. Yes.

Q. "In view of the uncertainties that surround submarine mining, uncertainties such as quality and height of seam and the possibility of inundation as well as disaster, it is essential in this as in other fields that the reserves of coal should be developed in a properly planned and orderly manner as occasion requires."

A. In a Coal Company such as the Dominion Coal Company, operating its submarine mines, I point out that you have no knowledge of what the quality of the coal is that lies ahead of you, or no knowledge of the height of the seam that lies ahead. You are taking a lot on trust. Things may change, and you might have an inundation problem, or a disaster, and lose that mine. If you lose the mine through any of these causes you would want something to replace the tonnage that you got from that mine. That is, you have to have some reserves of coal kept in hand to fall back on, and you must develop these reserves in an orderly manner as you require them. Not



dig in here today and another place tomorrow and ruin your outcrop so that you cannot get at these seams again.

Q. I appreciate that, but it does not seem to me - I suppose we are dealing with the same phenomenon where there are two factors to be taken into account, a phrase which you said could be understood in two senses, either of taking care of mines that were closed or depleted and meeting an expanded market?

A. Yes.

Q. And I take it that would be covered by the term "as occasion requires"?

A. Yes.

BY MR. FRAWLEY

Q. There are places where there are thinner seams than the seams you have in mind?

A. Yes.

Q. And I presume there are special reasons for mining them?

A. Yes.

Q. What are they?

A. They have men trained to that and who are accustomed to it, to doing that work, and don't look at it as a hardship.

Q. That is an important thing?

A. Very important.

Q. The psychological approach of these Cape Breton miners to the mining of these thin seams?

BY COMMISSIONER McLAURIN - That is not the only reason?

A. No.

Q. They mine 2" coal in some places where they have a very high quality coal?

A. Yes.

Q. An anthracite coal?

A. Yes.

Q. And they mine 2' or 3' seams in other places where the cover is light and they are not much troubled with air circulation?

A. Yes.

Q. All these enter into it?





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T. L. McCall

A. Yes. But you must bear in mind the psychological factor of men not being trained.

BY MR. FRAWLEY - In Minto they mine those seams because it is the only kind they have?

A. Yes.

BY MR. COHEN - It is not merely taken for granted that that state of mining exists. Of course the Union will deal with these matters. I don't want it to be taken that there are these mines because that statement was made. I am informed to the contrary.

BY MR. FRAWLEY - Now Dr. Boyle wants to bring to the attention of the Commission a certain Mines Report.

BY DR. BOYLE - My word was somewhat challenged this morning, and I want to put in the Mines Report for 1939. I gave you the wrong date this morning. Table 10, page 147. The heading of the Table is "Shipments of Coal from Nova Scotia".

BY MR. FORSYTHE - That is what we were thinking about this morning, all except the coal which goes to St. Lawrence ports.

BY THE CHAIRMAN - There was no thought of challenging your word Dr. Boyle.

BY DR. BOYLE - I know, but I wanted to clear it up. I guess coal that is shipped by water to Montreal and then trans-shipped is not included there.

JOSEPH McINTOSH takes the stand. EXAMINED BY MR. FRAWLEY

Q. You live where Mr. MacIntosh?

A. Passchendale.

Q. That is somewhere near?

A. Glace Bay.

Q. You have a submission to make and it has already been delivered to us, and will now be filed as Exhibit No. 45.

EXHIBIT NO. 45 - Brief to Federal Coal Commission  
from Citizens of Passchendale.



Mr. McIntosh then proceeded to read Exhibit No. 45, as follows:  
To the Honorable Members of the Federal Coal Commission:

The citizens of Passchendaale in the Town of Glace Bay, Nova Scotia, beg leave to submit a brief for your consideration during the hearings of the Federal Coal Commission to be held in Sydney, Nova Scotia, beginning January 16th, 1945.

We know that a general brief will be submitted to the Commission by the various Towns and Municipalities of Cape Breton County. We honestly feel, however, that our community, at this time, deserves special consideration and study. It is because of this honest conviction that we, as citizens of the community of Passchendaale, beg permission to present this statement.

Passchendaale is a part of the Town of Glace Bay and, as a community, it is dependent on one industry - that of coal-mining. For practical purposes it is dependent on the operation of one coal mine - that is No. 11 Colliery, owned and operated by the Dominion Coal Company.

At various times during the past twelve years the question of the closing of No. 11 colliery has been before the public, and, on such occasions, the Mines Department of the Nova Scotia Government has been approached by the citizens of Glace Bay with the result that the life of the colliery has been extended. The Department was approached last in the Spring of 1942 and after that meeting the Coal Company carried on some development work by beginning again to drive the main deep which had been stopped a short time previously.

BY THE CHAIRMAN - There is part of that that rather negatives the proposition put forth by Dr. Boyle.

MR. MCINTOSH (continues Brief)

As citizens of the community of Passchendaale and the Town of Glace Bay, we are vitally interested in the continued operation of No. 11 colliery for the following reasons.





(1) Passchendaele has a population of over three thousand and the greater part of this population is directly dependent on No. 11 Colliery for a livelihood. The majority of the workers among these three thousand have given the best years of their lives to the Dominion Coal Company and No. 11 Colliery. They have a stake in the Colliery because of that fact. Furthermore, many of them have invested their meagre savings in homes in the district to the value of \$195,000. in real and personal property. These same people have, during the past twenty five years, in good times and bad, built church property and schools in the district, which today have a replacement value of \$300,000.

(2) As a community, Passchendaele stands high in the Dominion of Canada in its record of enlistments. This is especially true of the first years of the war, when the system of recruiting was entirely voluntary. Are these men to come home, if and when they do, and find that the one colliery in the community is closed down and that they must, perhaps, leave their homes and their community to seek employment elsewhere? This brings to mind the question of transfers to other collieries. Transfers have been made from No. 11 Colliery, more or less regularly, for three or four years now. We submit that transfers will not solve the problem for the very simple reason that transportation facilities are not adequate. At the present time the lack of adequate transportation is causing great hardship to a great many miners, both as regards costs and loss of time and energy.

(3) The Town of Glace Bay, of which Passchendaele is a part, has, within the past ten years, spent a great deal of money in the Passchendaele District in extending sewer facilities and in giving electric light and water to every resident. The town also maintains 4.7 miles of streets in the Passchendaele district and is already on record with a program which calls for the paving of at least the main street running through Passchendaele as soon as materials are available. The Town of Glace Bay is dependent for a sizeable part of its revenue on the taxes received from the residents of Passchendaele, especially those





with private homes already mentioned, as also from the Dominion Coal Company whose property in Passchendaele, both real and personal, is assessed at \$207,000.

From the various meetings held with the Honorable Minister of Mines and other representatives of the Nova Scotia Mines Department, the citizens of the community of Passchendaele have learned that there is still plenty of extractable coal in No. 11 Colliery. Some years ago the Dominion Coal Company stopped entirely the development of the East Side of the colliery. The reason given for this stoppage was that the coal ranged in height from two feet eight inches to three feet and it was impossible to mine such coal profitably under the system of mining in use. Unofficially it has been stated, at times, that the Company would develop the East Side of the mine if the miners accepted the bottom brushing method of mining. As citizens of Passchendaele we can here speak for the members of Local Union 4519 to this extent. For over three years now the Local Union is on record as being willing to discuss this question of bottom brushing at a round table conference of representatives of the Coal Company, the Mines Department and the Union. No such conference has materialized despite overtures by the officers of the Local Union.

We have also learned from our conferences with the representatives of the Mines Department that the West side of the Colliery has many years of life before it yet, with a great deal of extractable coal. Against all this we have the policy of the Coal Company which seems to be one of preparation for the closing down of the colliery. In 1939 there was a working force in No. 11 Colliery of approximately 850 men. These men lived in Passchendaele, other parts of the Town of Glace Bay, and in the communities of Birch Grove, Port Morien and Donkin. Today, through enlistments, transfers to other collieries and a fairly consistent policy of non-hiring, the working force has decreased to about 450 men. The great majority of these men, as always was the case, live in Passchendaele.



Meanwhile, with the East side of the mine stopped and only a minimum of development work being carried out on the West side, the situation is rapidly becoming acute. The Coal Company argues that the cost of extracting coal from No. 11 Colliery is prohibitive and that it is losing money on every ton of coal taken out of No. 11 Colliery. It is also argued that the roof condition in the mine is bad. This point is conceded, but we can again speak, as citizens, for the members of Local Union 4519 to this extent only. One week ago (that would be about four weeks from now) Local Union No. 4519 went on record at a regular meeting as expressing willingness to discuss modern methods of mining, including mechanization, at any time with representatives of the Nova Scotia Mines Department and of the Dominion Coal Company.

With respect to bad roof conditions, it was recommended, three years ago, to the Mines Department by the Citizens' Committee that headways and deeps off the levels be driven not more than 600 feet instead of the usual procedure of driving them 800 feet. In the opinion of competent miners such a system of mining in No. 11 Colliery would eliminate seventy percent of the cost that is now due to bad roof conditions, because these conditions are usually found in the last 200 feet of such headways and deeps.

We respectfully submit this statement to you, Honorable Sirs, on the situation with respect to No. 11 Colliery and the Community of Passchendaale, in the hope that with the authority vested in you as a Commission you will give this brief every consideration, keeping in mind the dignity of man and the rights of the worker as a human being.

We feel that this is certainly a situation that requires the joint efforts of Government, employer and employees. We have already mentioned the willingness of the members of Local Union No. 4519 to discuss this whole question with representatives of the Government and the Company. We have found the Government for the most part willing to meet us as





workers or citizens. We regret to state that we have not found the Company as willing.

As citizens we say, finally, that Passchendale has more than its proportionate share of men and women in the fighting forces of the country, and we believe that, if they are fighting for anything, they are fighting for the continued life of their community, which really means the right to employment, peace, harmony, order and security.

Finally, we respectfully submit that the basic question touching No. 11 Colliery and its continued operation is one of higher production. We feel, as citizens, that even in this colliery higher production of coal can be attained, for the coal is there. This higher production can only become a reality, however, if management and labour will get together. We believe that higher production will mean lower cost extraction of coal from No. 11 colliery. We believe it is a question of method, a question of the system of mining used, and we submit that the Commission recommend that the necessary steps be taken, by all parties concerned, to get together and discuss and study the question thoroughly.

BY THE CHAIRMAN - I want to say that the Commission now has a good deal of information through an Engineer, I don't know whether it is to be made public yet or not, who investigated this very mine, and I think I should say at this time that so far as costs are concerned that his estimate is that the present costs of operating that mine under present conditions are prohibitive.

BY MR. FORSYTHE - That is an independent Engineer?

BY THE CHAIRMAN - Yes.

BY MR. FRAWLEY - Thank you Mr. MacIntosh.



BY MR. FRAWLEY: Now that concludes all the submissions that are to be presented at this sittings.

I want to give to Mr. Forsyth for his clients' information a list of some 25 questions which contain requests by me for further information for the Commission. They have to do with a variety of subjects which have not been covered in any of the Company's submissions. In the odd instance if they might have been covered in the submissions, then it will be understood of course that they will not be repeated, except if a slight repetition might be of help.'

BY MR. COHEN: I take it that that will go into the record so that that material will be available to all in case it might be of assistance.

BY THE CHAIRMAN: Yes, that will go on the record.

BY MR. FORSYTH: It is very kind and thoughtful and as I informed Mr. Frawley this morning and will now state to the Commission, all information that is available will be gladly furnished by the Company.

BY MR. FRAWLEY: In addition to the matters that are dealt with and covered in that list of questions and requests, it is my view that the Commission must review certain financial aspects of the coal mining industry and I have proposed to retain forthwith a competent chartered accountant and I will make arrangements for him to confer without delay with all the parties interested.

#### Questions

##### OWNERSHIP AND RESERVES

1. A map and an accompanying memorandum shewing, in color if convenient, location and legal description of the coal lands held in leasehold by Dominion Steel and Coal Corporation Ltd. or its subsidiaries or affiliates in the Maritime Provinces, the memorandum to shew the amount of rentals, royalties or other considerations, and to further shew the estimated reserves of mineable coal, classified by grade, in each leasehold.



2. A map shewing the location and legal description of coal mines owned by Dosco or its subsidiaries or affiliates but not now operated together with an accompanying memorandum shewing:
  - (i) the estimated coal reserves in each case
  - (ii) the reasons for the abandonment or cessation of mining operations
  - (iii) the particulars of any applications made to the Corporation for the sub-leasing of the properties
  - (iv) the reasons why such properties are not now operated by Dosco or by sub-lessees from Dosco.
3. A memorandum stating and discussing the Corporation's policy with regard to the sub-leasing of mining properties by subsidiaries or affiliates to subsidiaries or affiliates, e.g. by Nova Scotia Steel and Coal to Old Sydney Collieries, the memorandum to cover inter alia:
  - (a) rentals exacted and principles followed in that regard
  - (b) royalties, if any reserved
  - (c) nature of provision made between parties for depletion of reserves, particularly whether such depletion is claimed for income tax purposes by the sub-lessor or the sub-lessee.
4. A memorandum stating and discussing the Corporation's policy with regard to sub-leasing of mining properties to individuals or corporations commonly designated independents, the memorandum to cover:
  - (a) rentals exacted
  - (b) royalties, if any, reserved
  - (c) assumption, or otherwise, by sub-lessee of royalty reserved by Crown
  - (d) nature of any provision made for depletion
  - (e) nature of provision made restricting the extraction of coal to a percentage of total mineable coal and reasons therefor





(f) nature of provision made or covenants entered into apart from (e), either within the terms of the sub-lease or otherwise and whether written or oral, limiting the production under the sub-lease to a fixed tonnage per day or other period.

5. Statements shewing for each of the years 1930 to 1944 inclusive the per ton pit-head cost of production of various classes of coal mined at each of the collieries of the Dominion, Acadia, Cumberland and Old Sydney Companies, the statements to break down the cost into materials, electric power, haulage, producers' wages, non-producers' wages, supervision, management, administration, taxes, royalties, etc., or such comparable sub-divisions of cost as the Corporation's records disclose.
6. A memorandum with such tables and charts as are considered useful, shewing for each of the years 1930 to 1944 inclusive, and for each of the collieries operated by the Dominion, Acadia, Cumberland and Old Sydney Companies the production per man per day, the statement to shew the production per man-day separately for producers and non-producers, the memorandum to set forth the Corporation's view upon the subject.
7. A memorandum, accompanied by such tables and charts as are considered useful, dealing with what is referred to as absenteeism, the memorandum
  - (a) to review each of the years 1930 to 1944 inclusive
  - (b) to cover all classes of employees, particularly producers and non-producers, each of such last-mentioned classes to be separately discussed and charted
  - (c) to state the Corporation's views upon the subject.
8. A statement dealing with the cost of electric power to each of the collieries of the Corporation, its subsidiaries and affiliates either by the Corporation itself, or by



Seaboard Power or by any other subsidiary or affiliate, shewing:

- (a) the production cost per kilowatt hour
- (b) the price charged the colliery for power supplied, in cents per ton and shewing method of charging the cost per kilowatt hour against the cost of coal
- (c) whether such price is fixed by the Nova Scotia Board of Public Utilities, and, if so, giving date of current Board order
- (d) the profit or loss to the supplier
- (e) the comparable prices charged per kilowatt hour to users not connected with Dosco.

- 9. A memorandum exhibiting all plans, blueprints, memoranda, etc., prepared for consideration of the Corporation's management having to do with the development of the Corporation's coal properties in the next ten (10) years, the memorandum to indicate the levels of production and employment envisaged by such development plans.
- 10. A memorandum elaborating upon the evidence already given by the Corporation's officers regarding the estimated post-war yearly production, setting forth the statistical figurations used in arriving at the estimate and keeping in mind the statement in F. W. Gray's evidence (vol. 1, page 11) to the effect that the 1938 Maritime production of six and a half million tons represents 75 percent of maximum.

#### TRANSPORTATION

- 11. a memorandum and/or statement shewing the cost per ton of transporting coal by water from Sydney to Saint John, N.B., Quebec, Three Rivers and Montreal.
- 12. A memorandum dealing with the various cost factors involved in the transport of coal, rail and water, from Pithead, Glace Bay, Sydney Mines and Pictou to St. Lawrence River ports for the years 1932 to 1939 inclusive, broken down to indicate the following factors when, and if, involved:





- (a) Rail to International Pier (this is a published tariff rate of 28 cents per gross ton or 25 cents per net ton) also rail to other coal docks (railway tariffs).
  - (b) Handling into vessels, trimming, etc.
  - (c) (i) Water from International Pier and other docks to various ports on the St. Lawrence River (inclusive of Marine Insurance, etc.)  
(ii) Discharging at St. Lawrence River ports.
  - (d) Storage at St. Lawrence River ports and loading into railway cars or trucks.
  - (e) Wharfage charges where involved.
  - (f) Trans-shipment from ocean vessels to lake canallers at St. Lawrence River ports.
  - (g) Actual water rates as assessed by bulk freighters and self-loaders from St. Lawrence River ports to Lake Ontario and Lake Erie ports.
  - (h) Unloading costs to stock pile or into railway cars.
  - (i) Storage and loading into railway cars at different Lake Ontario and Lake Erie ports.
13. When coal is banked in the winter for subsequent shipment by water, what have been the extra costs incurred for transport from pithead to stockpile, storage, handling, loading into coal cars and thence transport to coal docks?
14. In connection with the various cost factors in (12) and (13) kindly develop information, where possible, respecting increases in cost now existing which are likely to remain in the post-war period. That is to say, apart from the matter of water transport cost, Sydney to St. Lawrence River ports in the post-war period, which is indeterminable, what are the increased costs now in effect which are likely to remain and thus reflect in the through costs of moving coal from pithead and unloaded at St. Lawrence River ports?



15. What proportion of the coal shipped to St. Lawrence River ports has been banked and subsequently re-shipped?
16. (a) Are the water rates on page 38 of Exhibit 6 (Markets Brief), with the exception of Toronto rates, in connection with bulk freighters?  
(b) If the answer to (a) is in the affirmative, what are the unloading costs at the points named at page 38?
17. To what extent would coal be displaced by oil used for tractors? (see page 50, Exhibit 6).
18. Has there ever been any information developed as to loss in value in Cape Breton coal due to handling and oxidization (when stored) from pithead to destination via water?
19. A memorandum shewing total freight subventions paid on shipments of the Corporation's coal in each year since subventions authorized, dealing separately with Cape Breton, Acadia and Springhill operations.
20. A memorandum shewing total of all production and other coal subsidies received during the years 1930 to 1944 by the Corporation, directly or indirectly, whether through the Emergency Coal Production Board or under the Domestic Fuel Act, R.S.C. ch. 52 or under Chap. 6 of Statutes of Canada 1930 or otherwise.

#### MARKETS

21. A memorandum dealing with the sale of various coals to the Montreal Coke and Manufacturing Company and to the Corporation's subsidiaries and affiliates, including the Corporation's steel plant at Sydney during each of the years 1930 to 1944 inclusive, the memorandum to:
  - (a) exhibit copies of all pertinent contracts
  - (b) the prices charged to each of such companies
  - (c) the mechanics of the procedures used in arriving at the price or prices and
  - (d) to give a summary of the price changes, with reasons therefor, in the period 1930 to 1944 incl.



- (e) to shew the comparable prices of similar coal sold to
  - (i) large industrial consumers, e.g. Internationn-al Nickel and
  - (ii) to wholesale or retail marketers for re-sale
- 22. A memorandum or statement shewing the value per ton of coal of the chemical derivates obtained from the coal sold by the Corporation to the steel plant.
- 23. A memorandum dealing with the matter of selling agents, wholesale or retail, the memorandum to set out the names and location of such agents and to exhibit copies of all contracts which contain provision for
  - (a) exclusive agents
  - (b) exclusive sales territories
  - (c) special commissions, discounts or prices.
- 24. Complementary to item 16, a memorandum covering the Corporation's sales policy, having in mind generally but not exclusively the following matters:
  - (a) does the Corporation's sales department engage in both wholesale and retail distribution, either directly or through owned or controlled agents or dealers?
  - (b) in populous areas, e.g. Halifax, Saint John, Quebec, Montreal, Ottawa, Toronto and Hamilton, what in brief are the mechanics of the distribution? Are all wholesalers free to purchase their requirements on the same basis? Are all retailers free to purchase on the same basis? Please discuss fully.
  - (c) does the Corporation allocate exclusive territories within which the sale of the Corporation's coal is confined to one wholesaler or retailer? If so, please discuss and give particulars.
  - (d) does the sales department directly negotiate and





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execute sales to large industrial consumers, e.g. International Nickel Co., or is this business carried on through the intervention of any agent or wholesaler or retail dealer and what is the Corporation's sales policy in this respect? Please discuss this class of business fully, explaining prices charged and technique involved in establishing such prices.

25. A statement shewing the make-up of total sales costs per ton for each of the years 1930 to 1944 inclusive, the statement to shew separately dock and pier expense, inventory expense, salaries, wages, commissions, discounts, sales promotion expense, combustion research expense, etc., or such other comparable sub-divisions of sales expense as the Corporation's cost-keeping records disclose.

BY MR. COHEN: There were several matters that I asked for in the course of examining Mr. McCall, and I think Mr. Gordon also, that were to come in.

BY MR. FRAWLEY: Mr. Gordon will present that material that you asked for at New Glasgow.

BY MR. COHEN: I will not be in New Glasgow.

BY MR. FRAWLEY: It will be sent to you.

BY MR. COHEN: I wonder if I might inquire about one item that Mr. McCall was to get as to the question of age distribution of the employees. I am not suggesting that it should be ready now.

BY MR. FRAWLEY: When that material is supplied to me I will endeavor to recall the things you asked for and send them to you.

BY MR. COHEN: I wonder if I may ask Mr. McCall when that material is being prepared if it will be possible to indicate these age distributions also as to classification, that is as to so many miners of this age and that age. It just means another column.



BY MR. FRAWLEY - I think we will have to put it this way. Obviously Mr. McCall, if he is going to get any information asked for by Counsel, will get anything that is possible, but I don't think he can commit himself now to do it.

BY MR. COHEN - I thought I made that clear, that Mr. McCall should take under advisement if he thought that should be done.

BY COMMISSIONER McLAURIN - Mr. Frawley, you mentioned the fact that you want an Accountant, and if you want one, I for one, would say you had better get one. I suppose you are also taking into consideration the possibility of some technical engineering assistance?

BY MR. FRAWLEY - I have been giving that some thought, and it is likely, if I am fortunate in finding one, that there will be a competent Engineer.

BY COMMISSIONER McLAURIN - I take it it is beyond the tentative stage, and when you have him you will have him conferring with the Company.

BY MR. FRAWLEY - Yes, and with Mr. Forsythe.

BY THE CHAIRMAN - This Commission will not base its findings on any hearsay evidence, you need not worry about that. If there is a proposition put forward without evidence, we assure you that if that evidence is available we will get it, but will not recommend anything on the mere statement of hearsay evidence.

We want to thank everyone here who assisted the Commission, and particularly to thank the Boards of Trade, the Municipalities and the various persons who came here on their behalf, because it was a work which was voluntarily done without remuneration in any way, and something in which they were only trying to help out the general situation so far as the coal industry is concerned in Canada. Also the Coal Company for the very valuable assistance they have given us. They have given us everything we asked for. Also the United Mine Workers. It is true they have not completed their case, but neither has the Coal Company, and we want to thank them for





their keen interest in this case, because, after all, they and the Coal Company here are the most interested people here directly. We thank the Press too. The Canadian Press has given us a man here who is making daily reports. I have not read his reports because I have not had the time, but I have no doubt that in all cases the reports have been correct, and so far as I am concerned, I know we have had no report to the contrary. All we ask of them is to give some accurate account of what is transpiring from day to day.

BY COMMISSIONER McLAURIN - I say that with all heartiness I looked forward with pleasurable anticipation to even a winter visit in Cape Breton, and I assure you that I am looking forward to the possibility of a further visit when the beauties of Spring or Summer or Autumn are clinging about the Bras d'Or Lakes.

BY COMMISSIONER MORRISON - Our good Chairman, and the other Commissioner have left nothing for me to say, and I heartily subscribe to what they have said. We will all be back we hope when the weather is more favorable. This is an unusual day in Cape Breton. I think that the interested parties and the general public can rest assured that this Commission is out to get facts and we hope they will be forthcoming, and on that basis we will write a report when the time comes without fear of favor.

BY THE CHAIRMAN - I want to say further in exemplification on the part of Mr. Morrison, that "we will be back" has not the same meaning as the words of General McArthur.

BY COMMISSIONER MORRISON - I might add that Mr. Justice Carroll is going out to Western Canada, and when he comes back I will leave it to your judgment if the trip does not do him a lot of good.

4:25 P.M. HEARING ADJOURNED

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ROYAL COMMISSION ON COAL

Halifax, N. S., February 1st, 1945.

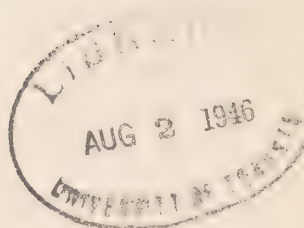
VOLUME X

WITNESSES:

Dr. A. E. Cameron

EXHIBITS

- No. 46 - Submission on the Coal Resources and Coal Industry of Nova Scotia, by the Department of Mines, Province of Nova Scotia.....Page 769.





Halifax, N. S., Feb. 1, 1945.

The Royal Commission on Coal resumed its hearings in the Court House, Halifax, N. S., at 10.00 A.M. on February 1st, 1945.

PRESENT: Hon. Mr. Justice W. F. Carroll, Chairman  
Hon. Mr. Justice C. C. McLaurin, Commissioner  
Angus J. Morrison, Esquire, Commissioner  
J. J. Frawley, K.C., Commission Counsel  
Robert D. Howland, Secretary

BY MR. FRAWLEY: The first witness for the Halifax sittings will be the witness who will present a Submission for the Department of Mines of the Province of Nova Scotia.

HON. L. D. CURRIE, Minister of Mines: Before the Commission begins its formal submissions may I be permitted to extend, on my own behalf and on behalf of the Premier, a word of welcome to the Commission on its first visit to Halifax in its official capacity. Of course we all know that the Chairman is on familiar ground not only in this room but in his home community. Mr. Commissioner Morrison has just returned from his native heath where he was brought up and where I know he met many of his old friends who were delighted to see him. We have a special welcome for Mr. Justice McLaurin, who has come a long distance to Nova Scotia. He is well known, of course, to the legal fraternity because his decisions are read with interest and with profit, and we trust that upon his next visit to Nova Scotia next June when the Chairman of the Commission brings him to those quiet fishing pools that nestle in the beautiful Margaree River that he will be very loath to return to his native home in Alberta.

The importance of this Commission cannot be overestimated, and we realize the tremendous responsibilities that rest upon your shoulders. In your work is mirrored in a sense the whole Canadian picture. You have the element of





geography, the element of disparity of geological depositions of these coal areas, and the impact of the concentration of populations in two of the larger provinces in Canada. There may perhaps be in addition the constitutional element, for in a sense that has to be touched because of the control of the coal areas in this province in a different sense to some of the other provinces in Canada, and therefore we know what the effect of your work will be.

We want to assure you, and the Premier particularly charged me to say, that while the brief which will be submitted by Dr. Cameron is from the Department of Mines rather than from the Government of Nova Scotia, yet he said that if there is any assistance which he or any member of his Government or staff can give to this Commission at any time it will be most cordially offered.

THE CHAIRMAN: On behalf of the Commission generally-- I dare say that having regard to the fact that you made special mention of my friend on the right he will have something to say for himself--on behalf of the Commission as a whole we thank Mr. Currie, Minister of Mines for the Province of Nova Scotia, and through him the Premier of the Province, for the splendid co-operation they have been giving us so far in this Commission. There is perhaps no element of the country, no particular department of the country--and I am talking of the whole of Canada--that has the coal interests of the province and of Canada at heart as much as the Mines Department of the Province of Nova Scotia. This is, of course, as it should be.

Now I may say that we are going to ask the Premier of the Province of Nova Scotia to give us a little assistance. We are going to ask the Premier of the Province of Nova Scotia to send with us to the Southern coalfields Mr. Casey, who is Inspector of Mines for the Province of Nova Scotia. The reason is that Mr. Casey has made several trips down to these Southern areas and I don't know of any man who is more capable



of showing the disparity, if you will, or the difference between coal mining and coal operations and coal marketing in the States, where we meet the most competition, and the Nova Scotia fields.

We are also inviting Mr. Currie, the Minister of Mines of the Province of Nova Scotia, to come along with us to those Southern fields. I think we will be able to pay Mr. Casey's way but we cannot pay the expenses of the Minister of Mines, but I wish, Mr. Currie, that you would place both these matters before the Premier of the Province and assist us, and I am serious about yourself coming when we get down to that part. It is only because I didn't really have an opportunity of seeing the Premier--I called him up yesterday--that I make this statement.

COMMISSIONER McLaurin: Thank you very much for the warmth of your greeting. I feel like mentioning at the outset that this is not my first trip to Nova Scotia; I travelled here once before. I think I was impelled to do so in large measure because as a Canadian I felt I owed it to myself to see all of Canada. I didn't at that time see all of Nova Scotia but in coming here I knew I would be cordially received and naturally I am looking forward to summer and the beauties of Nova Scotia.

I feel like making just one observation respecting the work of this Commission. This is the first time the problem has been considered in its broad national aspects, and doing so I think was overdue, and even from my present pursuit of our duties I lean to the view that probably one of our most important tasks is an accurate finding on all the facts that relate to the industry both here and in the West, and in Central Canada from a consumer point of view. I think if we do that work well the recommendations that we may make may not be as important, although of course they will be serious too, but I don't think there has ever been a proper fact-finding job done with respect to the industry. I think the Chair-





man and my fellow Commissioner agree with me on that important aspect of our work.

COMMISSIONER MORRISON: I want to thank the Honourable Minister for his kind remarks. Some reference was made at the opening session in Sydney that I had a Cape Breton background and a Western outlook. A few days later I was being introduced and it was said that they weren't so sure if it would not be better if I had a Western background and a Cape Breton outlook. However, I want to assure you that as a Canadian I am very happy to be in Halifax today and despite the fact that there were some people that I met on this trip who really thought that Canada started at Point Aconi and ended at the Strait of Canso, we are going to view this from a purely national viewpoint in the interests of the country as a whole and the people that the coal industry means so much to, and in the Province of Nova Scotia particularly coal is the bloodstream, so to speak, of the economy of Nova Scotia. Out in Alberta we hear a lot about bloodstreams and other streams, but in Nova Scotia the coal industry is actually the bloodstream of the economy of this province. No doubt we will learn more about that from the Honourable Minister and his able Deputy, who also I believe spent some time in Western Canada, and perhaps acquired a Western outlook.

BY THE CHAIRMAN: In Sydney we adopted a practice in regard to oaths. People who come in to read briefs are, while they are reading the briefs, not under oath. When they come to be examined afterwards there is an oath put to them regarding the facts of the evidence which they will give; that is to distinguish it from absolute information and in certain instances from the viewpoint of the person making the submission.

DR. A. E. CAMERON: May I officially present this brief?

Exhibit 46 - Submission of the Department  
of Mines, Province of Nova Scotia



EXAMINED By Mr. Frawley.

Q You are the Deputy Minister of Mines for the Province of Nova Scotia?

A Yes.

Q You have some academic attainments? Would you kindly state them?

A I am a Bachelor of Science and Master of Science of McGill University, Doctor of Science of Massachusetts Institute of Technology in the science of metallurgy. As an under-graduate I graduated in mining geology. For my Master's degree I wrote a thesis on Coal which was printed in the Report of the Investigations under Dr. J. B. Horder.

Q What year was that?

A That was 1914. For my Doctorate I wrote a thesis on "The Influence of Arsenic in Steel."

Q What year was that?

A That was in 1926.

Q And for some time you were living in Alberta?

A I was for 20 odd years on the staff of the University as a lecturer and demonstrator in geology and subsequently as professor of metallurgy there.

Q And you are now to present the submissions of the Department of Mines of the Province to the Commission?

A Yes sir.

Q Will you proceed?

DR. CAMERON: This submission is broken down into a number of parts, each dealing with the main items that are mentioned in the Introduction, and some additional discussions arising out of those sections.

#### INTRODUCTION

The interest that the Provincial Government has in the coal industry of Nova Scotia lies in five essential factors:-

I - Coal is vital to the nation in peace as in war.

No coal-producing section of the country can neglect its resources and the country as a whole cannot neglect a section in



which such a vital resource occurs.

II - The coal resources belong to the Province. It, therefore, has the right to see that they are used or conserved in the best interests of the Province as a whole.

III - The coal resources are a direct source of livelihood for some 20% of the population of the Province and, indirectly, for many more. The social and material welfare of a body of that size plays an important part in the overall economy of the Province.

IV - The Province has responsibility for the safety of mining, safety to the personnel engaged in the operations and safe practice in extraction so that resources will not be lost through collapse of workings, fire, explosion or flooding by sea water.

V - Production of coal is a source of direct financial return to the Province, not to as important an extent as in former years but, nevertheless, still a substantial portion of the Provincial income.

The-Provincial interest lies in these factors. It is imperative that a coal policy be developed which will utilize the production of the coal fields to the greatest good of the nation and the Province to ensure the longest possible life to coal mining operations and to give continuity of employment to personnel engaged in the operations. These mean maximum safety and economy in production and minimum wastage of the reserves.

Each of these factors is further discussed in the following pages. It will be shown that consideration of all the problems involved resolves into one problem - the question of markets for the coal production.

A detailed discussion of markets and preparation of coal for them is included in the brief.





SUMMARY AND CONCLUSIONS

1. The national interest of the Dominion demands that the coal industry of Canada should be developed to supply as much as possible of the normal needs for coal. It is realized that complete dependence of industrialized central Canada upon Canadian coal is not economically possible. It is believed, however, that a sufficient market should be available to assure permanent operation of the Canadian mines so that they will be ready in an emergency such as war to expand to meet the additional demand.
2. The coal industry of Nova Scotia has at present a productive capacity of about 7,700,000 tons of coal per annum. Estimates of requirements for regular operation and employment of present working force plus expected additions upon demobilization of Armed Forces indicate a need of markets for 9,000,000 tons per annum.
3. Nova Scotia needs markets for an exportable surplus of about 4,500,000 tons. This is about 2,000,000 tons in excess of maximum markets found in prewar periods.
4. Community stability in the coal areas requires continuity of operations and regular employment of workers. These can only be obtained if markets are assured and transportation facilities to those markets constantly available.
5. Local markets can be improved only at the expense of other materials. Replacement of anthracite and fuel oil used within the Province is possible if carefully prepared coals are available for automatic or semi-automatic equipment in domestic household heating field and in local industries.
6. Stability of production in the fields requires uniform markets, whereas normal demand fluctuates with seasonal and industrial changes. Storage facilities and preparation plants are needed to meet these requirements.



7. Nova Scotian immediate coal resources, although adequate for from over a century to two centuries at the proposed maximum rate of consumption, are limited; and utilization of lower quality, more inaccessible or more difficulty mineable deposits will involve increased costs in recovery. These facts impose need for research and investigation on the preparation and methods for utilization of these deposits.

### I - THE NATIONAL ASPECT

The coal industry of Canada is handicapped by the geographical fact that, while the coal deposits of the country are in the extreme east and the far west, the greatest demands are in the centre of the nation. It is further handicapped by the fact that the central markets can be more quickly and more cheaply supplied with coal from the producing districts of the United States. The overall economy of the nation requires that its industries and its people be continuously supplied with all the fuel requirements at a minimum cost. It is obvious that Canada cannot become completely independent of imported coal. What is needed is a control of the Canadian markets and of the distribution of coal to them in such a way that, while the consumer gets his fuel at a minimum cost, the producing areas can be assured of regularity of demand for their products and through that demand obtain continuity of operation.

The need of a national coal policy has been discussed in detail by each of the many reports and briefs<sup>1</sup> that have been prepared over the past twenty years. All are unanimous that the fuel needs of Canada in peace as in war require a national policy that will keep the coal mines operating as an economic unit. All realize that an economic industry requires stabilized

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<sup>1</sup>The Duncan Commission, 1925.      Brief to Government of Canada  
The Duncan Commission, 1932,      from Nova Scotia Coal Companies  
The Jones Commission, 1934.      1939.  
Brief of Dosco to Dawson  
Commission, 1942.





and regularized markets so that the industry can grow and expand as the markets grow and expand.

BY COMMISSIONER McLAURIN: Those various reports are dealing with the Nova Scotia problem, not the national?

DR. CAMERON: Yes sir, but I do mention reports later dealing with the Alberta problem.

Q There is no national report in existence?

A No sir, not up to now.

BY MR. COHEN: As I understand it, in these provincial reports reference was made to the need for a national policy?

DR. CAMERON: Yes sir. (Continues) Many of the reports indicate that there had been over-development in the past. The Duncan Commission 1932 in Nova Scotia accepted the proposals of Dosco for a reallocation of coal areas and a consolidation of operations. The Evans Commission 1925 and Barlow Commission 1935 in Alberta both pointed out the great over-development of coal mines in that Province.

Any economist will admit that over-development is undesirable in that it tends to develop uncontrolled competition which destroys the necessary marketing arrangements for existing operations, and this upsets the social conditions of the communities that have been built up around them.

The Province has certain responsibilities in these matters. The coal resources belong to it. The social conditions of the workers in the industry and of the communities which have built about them depend largely upon how the resources are developed. Regulation of production, particularly regulation of development for new production, of necessity falls upon the Province. Markets, however, are beyond its control and regulation of development cannot be obtained until the markets for the production have been established.

It will be shown later (Table V) that the prewar productive capacity of Nova Scotia mines was about 7,700,000 tons. In that connection I would like to point out that we refer always to tons of 2,000 pounds.



BY COMMISSIONER MORRISON: At that point, in the reports of your Department do you follow the same procedure?

DR. CAMERON: Very recently, sir. Last year I think was the first year we were asked by the Federal Department of Statistics to convert everything to short tons, and that has been done. (Continues with brief): If the mines could have had a regular market for this capacity, there would have been no serious economic or social problems within the coal-producing areas. Actually market conditions have limited production to appreciably less than 7,000,000 tons with consequent idle days at the mine and depression in the communities.

Average figures for Nova Scotia coal markets for the four years immediately prior to the war<sup>1</sup> compared with 1943 are shown below:-

<u>Market</u>	<u>Consumption/Tons</u>	
	<u>Four Year</u>	<u>1943</u>
Newfoundland	110,000	290,000
Maritime Provinces	1,250,000	2,100,000
Steel Industry	780,000	1,150,000
Railways	840,000	1,000,000
Quebec and Ontario	2,500,000	650,000
Bunkerage	290,000	145,000
Colliery use <sup>x</sup>	500,000	525,000
Miscellaneous	<u>230,000</u>	<u>140,000</u>
	6,500,000	6,000,000

<sup>x</sup>Includes employees' coal.

BY MR. FRAWLEY: If we wanted those four years it would not be much of a job to give us those four years? You have just given us the average?

DR. CAMERON: Yes sir, I could give you the four years.

BY MR. COHEN: Could the item as to railways be indicated in more detail? I was merely suggesting that when you were furnishing Mr. Frawley with additional information you might give some breakdown as to that.

<sup>1</sup>Summarized and generalized from Report on Mines, Province of Nova Scotia, 1936-1939 and 1943.



A As to which railway?

Q Yes?

A No, we have no record as to that. Our statistics are those which are supplied to the Department of Statistics.

BY THE CHAIRMAN: We will have no difficulty, if you require it, in getting that information.

MR. COHEN: Thank you very much.

DR. CAMERON continues: The change in market conditions brought by the war is very evident from this table. The substantial increase in consumption in Newfoundland, the Maritimes, the steel industry and the railways definitely reflects war activities. Some, but not all of them, may be held in the post-war period.

Mining conditions in the Nova Scotia coal fields are such that no large increase in productive capacity of the Province can be expected, although the need of employment for returning men from the Armed Services will require employment of the full production capacity and something more. It is estimated later that, if Nova Scotia productive capacity can be increased to 9,000,000 tons per annum and markets found for that production, the economic and social needs of the coal-producing regions as a whole will be satisfactorily looked after for the future.

The table given above shows clearly the vital part that the Quebec and Ontario markets play in Nova Scotia coal economy. Permanent, assured markets for 2,000,000 tons as additions to the prewar shipments would meet the minimum of a 9,000,000 tons market estimated to take care of the economic and social needs of the industry and its workers.

BY THE CHAIRMAN: What you mean by that is that in order to market your additional, that is the 9,000,000 tons, you would have to get a market in Ontario and Quebec for an additional 2,000,000?

A Not necessarily altogether in Ontario and Quebec.





Q Generally speaking?

A Generally speaking,

Q Over your 2,500,000 average?

A Yes. (Dr. Cameron continues): A national coal policy requires a complete assessment of the coal needs of the nation on a region or zone basis; determination of the logical source of coal for each region or zone; and allotment of those markets to the producing areas. Due consideration should be given to the needs of markets for the national production and, where necessary, assistance should be given for supply of coal to that market by special freight rates, subventions or other assistance.

## II - COAL RESOURCES - Geology

The general geology of the coal fields of Nova Scotia has been studied by many authorities<sup>1</sup> and needs no detailed consideration here. There are, however, certain fundamental geological factors which bear directly upon the problems of production of coal from the fields and these should be briefly reviewed.

There are four counties within the Province in which coal in commercial quantities has been found and worked for many years. In order of importance these are: Cape Breton, Cumberland, Pictou and Inverness Counties. Besides these, limited occurrences are known in Colchester County and Richmond County, and a small bit in Victoria County. Some work has been done on these areas but to date no satisfactory, permanent development has been obtained. They are potential fields only and will probably have very little effect on the overall problem of coal production in the future.

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<sup>1</sup>The more recent work is that of W. A. Bell, G. W. H. Norman and others of the Geological Survey of Canada, Drs. F. W. and R. H. Gray of Sydney, N. S., Prof. G. V. Douglas and associates of Dalhousie University, Halifax.



Each of the several coal areas has its own particular problem arising from the geological features of the deposits and will be reviewed separately.

#### Cape Breton County

The Cape Breton field stretches along the east coast of Cape Breton Island from Great Bras d'Or to Morien, a total of about 35 miles. The coal seams are flexed in gentle undulations and dip seawards at low angles. Originally an irregular, saucerlike basin of deposition, it contains a number of seams, each overlying seam overlapping the one below as the diameter of the saucer expands towards the lip. The saucer was later tilted seawards and the landward portion eroded. This results in a greater areal extent of each overlying seam and, because conditions of deposition were more quiet and for plant growth more favorable, the seams improve in quality as well as in quantity from the bottom to the top of the basin. There are no serious structural faults to interfere with extensive mining. These features indicate large reserves of mineable coal.

The fundamental handicap to the Cape Breton fields is the fact that they dip seawards. Although not limiting extent of the fields this fact does place limitations upon recovery of coal from the seams - limitations resulting from length of haulage, time required for haulage, transportation of men and materials, depth of cover, and other economic factors.

BY THE CHAIRMAN: I think the engineers of the Coal Company did not set any particular time limit or any amount of depth that they would have to go before that became in the condition that you suggest.

DR. CAMERON: No sir, I don't think you could give a definite figure at this time but there must be a limit beyond which they cannot go.

BY THE CHAIRMAN: And they are hopeful that with new methods of mining they can get every pound of submarine coal, where the roof and flooring are in the proper condition. Is that your opinion too?





DR. CAMERON: I couldn't say that without some consideration, sir. I feel that there must be an economic limit.

Cumberland County

Cumberland County contains two separate coal fields; one, in the vicinity of Springhill; the other, an extensive field stretching from the Joggins shore eastward to Chignecto.

The Springhill field contains the second most important coal resources of the Province. Significant geological features are relatively steep dips and some major flexures and faulting. Seven seams are known, five of them of workable thickness and extent. The other two may have value in the future. Conditions of deposition and for vegetable growth were not as quiet as on the upper seams of the Cape Breton area and the areal extent of the coal swamps was not as great. Zones or areas of low quality coal occur in all seams and impair the uniformity of mining. The seams are characterized by intermittent, lenselike bands of bone coal or splint, high in ash and requiring sorting underground, also picking and some washing at the surface before shipment.

There are three fundamental geological handicaps to mining this field. The relatively steep dips rapidly carry the seams to depth and result in heavy cover on the coal. The deepest mining in Nova Scotia (in excess of 3,800 feet measured vertically, below the surface) is done in this field. The overlying and inter-coal seam sandstones and shales carry bands or beds of dense, extremely tough and somewhat elastic sandy shales and heavy sandstone lenses. Mining under such strata tends to develop rock bursts or "bumps" creating a natural hazard that has serious implications, particularly with regard to deep mining. The third handicap is exceptionally high gas content in the coal seams and particularly in adjacent strata. This gas is liberated in the mining and requires great quantities of ventilating air to dilute it to harmless mixtures. The combination of heavy roof and liability to bumps requires relatively narrow workings. This in turn



means high velocities in the air stream to pass the required quantities of air to dilute the gas. The high velocity of air travel disturbs and carries the dust inevitably created in the mining operations, creating unhealthy conditions and additional fire or explosion hazards. For these reasons mining in the Springhill field is probably more hazardous than elsewhere in Nova Scotia. The extent to which mining can be carried will depend largely upon how these geological factors can be met.

#### The Joggins Coal Field

The Joggins or Joggins-Chignecto field has a lateral extent on the surface of some twenty miles, reaching from the Joggins shore to some distance east of Chignecto. Some mining has been done under the sea west of Joggins but the westward limit of the field has not been determined. The field occurs on the north flank of a long trough, the coal seams dipping south at medium steep dip ( $12^{\circ}$  -  $30^{\circ}$ ). The general geological structures indicate that there may be a hidden coal field of considerable extent in the vicinity of Southampton or Halfway river, which would be on the south side of that trough.

There are several seams at the west end of the Joggins field but these coalesce or die out eastward. Although of considerable lateral extent, the seams are all thin (1 foot to 4 feet) and all carry clay partings and splint bands. Many faults occur in the strata and, although not of great displacement, they handicap mining operations and have tended to limit operations from any one opening. More mines have been opened and then closed in the Joggins field than in any other coal area in the Province. The few large or more permanent operations that existed for any length of time finally closed because of quality or because the thickness of coal became unworkable at depth. The eastern end of the field has had less work done on it than the Joggins-River Hebert area. The future of the field lies there and possibly in extension to depth of some of the seams which have not been extensively mined elsewhere.





In spite of the apparent geological handicaps of thin coal and much faulting, the Joggins coal field operations have consistently given the most economical mining in Nova Scotia, largely because the working forces have produced higher tonnages per man employed than any other field. Although reserves are limited, this field should be capable of restricted production for some time.

#### Pictou County Coal Fields

The coal fields of Pictou County consist of three series of coal-bearing strata in ascending order: Westville series, Stellarton series and Thorburn (Vale) series.

Although not definitely proved to date, there is reason to believe that the Westville series will be found underlying the Stellarton coal horizons at some considerable but mineable depth. The youngest field (Thorburn) lies to the east of the other two and is disconnected from them.

Geologically, certainly one, Stellarton, and probably another, Westville, field have an entirely different origin from the other fields of the Province, although there is some evidence that one other field, i.e., Mabou, may have been formed in a similar way. Whereas all other coal fields of the Province represent the accumulation in situ of plant growths and their consolidation into coal seams, these two Pictou County deposits appear to have been formed by the accumulation of vegetation remains washed from a primary site and deposited in certain well defined settling basins. The coal seams in these fields are characterized by the absence of rootlets extending into the pavement clay immediately underlying the seam, clear evidence of a detrital origin of the coal accumulations.

This abnormal origin of the coal deposits introduces definite factors in the utilization, if not in the mining of coal. The fact that the coal-making material was washed or "rafted" into place means that it must have been carried by currents of water and these currents would also carry silt and





finely divided mineral matter, which would be deposited contemporaneously with the vegetable matter. Moreover, deposition of the vegetable matter in the settling basin under moving current of water would tend to separate the finely divided vegetable matter such as spores, leaves, etc. in certain sections of the seam. These on consolidation and formation into coal tend to form lenses and stringers of carbonaceous matter differing from the main body of the coal.

The Pictou County areas, particularly those of Westville and Stellarton, were subjected to earth movement following deposition and consolidation of the coal beds. They are folded and faulted and these have resulted in abrupt changes in dip and strike of the coal seams, making for lack of continuity of mining operations and requiring different methods of mining.

The mode of origin and the structural conditions of the fields handicap the mining operations and restrict production. The relatively close association of coal matter with mineral matter at the time of formation of the coal beds has resulted in relatively high ash content to the coals. Moreover this ash content is entirely bound up in the coal seam and is not, as elsewhere, easily separable by handpicking or simple washing. Also the segregation of the coal matter into various fractions develops a tendency towards spontaneous combustion. Fire originating spontaneously is a definite hazard to mining operations, particularly in the Stellarton workings.

BY THE CHAIRMAN: That fire hazard, that is in the mine?

DR. CAMERON: In the mine, yes sir. (Continues):

#### Inverness County Fields

The four coal fields in Inverness County lie on the west coast of Cape Breton Island. Although not contemporaneous, they were subjected to very similar geological conditions and this has resulted in a relative uniformity in coal quality. The three fields: Port Hood, Mabou and Inverness and the Chimney Corner portion of the fourth field are largely submarine in extent



The Mabou field is more disturbed geologically than any of the others. The seams dip steeply to almost vertical, have very limited exposures on the shore, and their extent under the sea is difficult to forecast.

The Port Hood deposit appears to be a well-defined basin lying between Port Hood island and the mainland. It has been subjected to minor geological disturbances only.

The main seam at Inverness has been completely worked to a point where it appears to turn abruptly down in a steep geological roll. At the west end it is pinched to unworkable thickness. To the east it is cut off by a fault. There is some geological evidence that the seam within these limits may flatten beyond this roll but to what extent it would thicken and again become mincable cannot be determined.

BY THE CHAIRMAN: It doesn't extend undersea in the Inverness area?

A Yes sir, the three of them are submarine.

Q Well, the submarine portion of the Inverness mine has never been?

A Oh, yes sir.

Q How far?

A About 7,000 feet.

Q And is there anything to indicate how far those areas extend or what they contain?

A No sir. They have been completely worked out to the sea portion, to this sudden change in structure. Now what happens beyond that is any man's guess. They have been worked out on the main seam particularly and somewhat on the second seam.

DR. CAMERON continues: The Saint Rose section of the Saint Rose-Chimney Corner field is completely determined by the outcrop and bounding geological faults. The limits of both coal seams lie within land areas without excessively steep dips and so far as is known without interfering faults.





In the Chimney Corner area the seams dip steeply ( $45^{\circ}$ ) under the sea and northern extension of the outcrops also pass into the sea. Complete lateral extent of this deposit is not known and geological evidence is not sufficiently complete to warrant other than approximate estimates.

BY THE CHAIRMAN: Has the undersea portion of Chimney Corner and Saint Rose been worked?

DR. CAMERON: No sir. (Continues):

#### Lesser Fields

At Kemptown, Colchester County, a coal field of limited extent is shown by the outcrop of one seam. The geological age of this deposit, although not definitely determined to date, appears to be older than the other coal fields of the Province. The limited amount of mining that has been done on the field indicates that it may be badly disturbed by folds and broken by faults. The seam is thin and the coal has a high ash content. The quality of the coaly matter, however, gives it a higher rank in coal classification than the other coals of the Province.

The only other coal occurrence of possible importance is that of Whitesides in Richmond County. The geology of this coal deposit has not yet been studied in detail and its lateral extent and the thickness and the quality of the coal have still to be determined.

#### II - COAL RESOURCES - Reserves

The first complete study of the coal resources of Nova Scotia was that made by the Geological Survey of Canada for the International Geological Congress held in Canada in 1913. The estimate of coal resources of the world made at that time was arbitrarily based on certain assumptions as regards continuity of seams and mineability of the coal. In it were included all known coal seams one foot or over in thickness, and an assumed continuity to a vertical depth of 4,000 feet. Lateral extent was taken on bases of the then known outcrops and assumed extensions of them based upon the geology as known



on the surface.

BY MR. FRAWLEY: Was that Dr. Dowling's report?

DR. CAMERON: That was Dr. Dowling's report to the world conference. (Continues with brief): The Jones Commission, 1934, reproduced the Geological Congress figures and subtracted from the total reserves given the amount of coal which had been mined up to that time<sup>1</sup>. Table I is reproduced from that Report. The figures show reserves in excess of three thousand million tons of coal and have frequently been reproduced to show the virtually unlimited resources of fuel available.

Since 1913 mining operations have greatly enlarged the knowledge of the coal fields and the seams of coal within them. Competent geologists<sup>2</sup> have restudied the coal fields and interpreted the evidence exposed by the mining operations. Mining experience has given limits to many fields on basis of mining economics and quality of coal.

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<sup>1</sup>J. H. Jones, A. S. Johnston and H. A. Innis, Report of the Royal Commission, Provincial Economic Inquiry, 1934, p. 191.

<sup>2</sup>Reference - many notable publications and articles by Dr. W. A. Bell of the Geological Survey of Canada and Dr. F. W. Gray of Sydney.



TABLE NO. I

1913

## INTERNATIONAL GEOLOGICAL CONGRESS

ESTIMATE  
OF  
COAL RESOURCES OF NOVA SCOTIA(From Report of Royal Commission, Provincial Economic  
Inquiry, 1934)(Including seams of 1 foot or over, to a depth of 4000 ft.  
(000's omitted)

District	Actual Reserve (Based on Actual Thickness & Extent)		Probable Reserves (Approximate Estimate)		Total Reserves	
	Area Sq. Miles	Metric Tons	Area Sq. Miles	Metric Tons	Area Sq. Miles	Metric Tons
Cumberland: Bituminous	60	682,000	5	250,000	65	932,000
Colchester: Bituminous			1	1,000	1	1,000
Pictou: Bituminous ) Cannel )	11	345,440 45,000	8	450,000	19	795,440 45,000
Antigonish: Cannel			1	20,000	1	20,000
Richmond: Bituminous			4	12,360	4	12,360
Inverness: Bituminous						
Land Area	5.75	61,800	10	22,000	15.75	83,000
Submarine Area	4	86,000	7	73,000	11	159,000
Cape Breton Co.: Land Area	92.66				92.66	
Bituminous		1,022,496				1,022,496
Cannel		5,415				5,415
Marine-3 Mile Limit: Bituminous			168.5	4,063,457		4,063,457
Marine-3 to 5 Miles: Bituminous					73	
						2,639,000
	173.41	2,248,151	204.5	4,891,817	450.91	
						9,771,968
Less Amt. Mined		149,000				149,000
		2,099,151				9,622,968



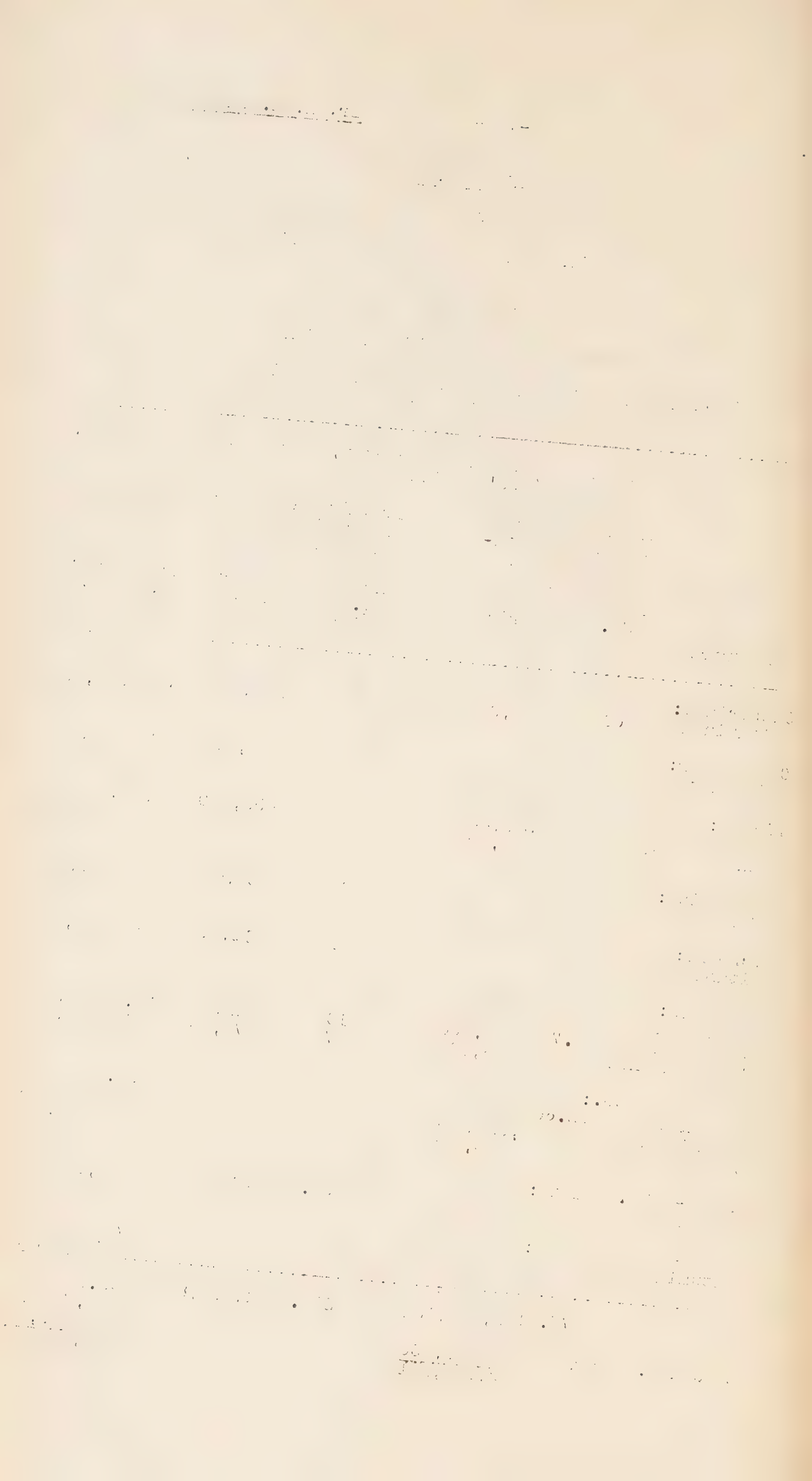


Table II gives a recast of the resources in the light of present knowledge. It is important to note that the assumption made in the compilations for the table vary considerably from those of Table I. Up to the present no seams less than two feet in thickness have been proved mineable in Nova Scotia. One district (Springhill) is now mining at a vertical depth of 3,800 feet. The mining operations are proving much more difficult and costly than at shallower depth, indicating that operations cannot be extended much beyond the 4,000 feet vertical depth previously assumed as a maximum<sup>1</sup>. Nowhere has such a depth been attained. In the Sydney coal fields where the greatest reserves are located, the seams for the most part lie with dips of generally less than  $10^{\circ}$  (although in local sections they are much steeper) so that a maximum vertical depth of 4,000 feet will require slope lengths in excess of five miles. Other factors, particularly those of transportation or ventilation, will likely limit the vertical depth to which mining may be carried in the Sydney area. The table shows the general limits that have been assumed for width, slope depth and thickness for the mineable seams in the various districts.

I have an apology to make at this point. It was unable to complete the table in the detail we planned and I have submitted a preliminary table which I would like to replace at a later date when those details are available. The general picture I think is relatively true in the table I have put in.

BY MR. FRAWLEY: That is Table II?

DR. CAMERON: Table II. I will want to replace it in detail later. (Continues brief): Past mining methods have produced a great tonnage of coal. They have, however, also left a great tonnage of coal as pillars and low quality coal

<sup>1</sup>Drs. F. W. and R. H. Gray, "The Sydney Coal Field," Trans. C.I.M.M., Vol. XLIV, 1941, p.321



in the now abandoned areas and this latter tonnage, though not mined, is lost. The table (and by that I mean the new table) will show both actual production figures and total coal lost in extracted areas.

Table II shows the resources of coal under three classes: probable, possible and potential.

Probable coal is coal which by direct mining experience and by diamond drilling results, or because of its contiguity to existing workings, can be considered as mineable within reasonable limits. It is available for immediate production. By immediate I don't mean tomorrow; I mean over the course of the next 25 or 50 years.

Possible coal is coal which, while less assured, is sufficiently close to existing workings or existing drilling records so that continuity in thickness, quality and mineability can be taken as reasonably certain. It needs further investigation for quantity and quality but should be in great part available for future use.

Potential coal is coal which is assumed present on known geological evidence within but on the extremities of producing districts or seams, or is known to exist but is of inferior quality under present day standards. It needs investigation and research on possible uses.

This recast of coal resources of the Province shows clearly that, although the remaining reserves are very much less than those formerly estimated, there is no immediate shortage of coal substance. The limits of production will be set not by lack of coal but by economic factors of mining costs, coal quality and ways of mining it.





TABLE II

## RESERVES OF COAL

## IN PRESENTLY WORKING OR PREVIOUSLY WORKED AREAS

		(Net tons - 000's omitted)		Reserves	
County	Coal Field	Hoisted	Probable	Possible	Potential
Cape Breton	Broughton	45	--	25,000	25,000
	Morien	8,938	--	35,000	35,000
	Schooner Cove	180	--	--	90,000
	Glace Bay	138,164	500,000	90,000	?
	New Waterford	37,633	315,000	65,000	?
	Sydney Mines	73,955	450,000	90,000	?
Cumberland	Springhill	27,221	50,000	75,000	?
	Joggins	3,456	15,000	15,000	30,000
	Chignecto	662	--	--	75,000
Pictou	Westville	15,898	17,000	18,000	30,000
	Stellarton	25,318	25,000	43,000	75,000
	Thorburn	7,405	5,000	--	--
Inverness	Port Hood	987	--	10,000	?
	Mabou	78	--	--	?
	Inverness	7,218	500	500	1,000
	Saint Rose	26	--	7,500	--
	Chimney				
	Corner	15	--	3,000	?
Victoria	New				
	Campbellton	213	--	8,000	?
Colchester	Kempton	30	--	1,000	?
Richmond	Whitesides	14	--	--	?
Totals		347,456	1,377,500	486,000	361,000

II - COAL RESOURCES - Quality

Coal, like all other mineral deposits, varies in quality from district to district and from place to place in a given district. District variations are usually greater than variations from place to place or seam to seam within a district. One seam in one district may have special chemical or physical properties that make it of particular value for certain purposes. What the layman may consider minor differences may play an important part in the marketing of the coal from a given seam or district. For example, coal from the Harbor seam was long considered the only suitable coal for coke for the steel industry at Sydney, because its sulphur content was only 2.2% compared to 3.9% average for all the seams in the same area. The



fact that generally Sydney area coals have an ash with a fusion point of about 2020° F. has limited the use of Sydney area coals for the production of domestic coke at the LaSalle plant in Montreal, the Montreal markets requiring a coke with ash fusion of over 2400° F. Reference will be made to this matter later.

BY THE CHAIRMAN: Which matter?

DR. CAMERON: The question of the LaSalle plant. (Continues): Table III gives the analyses of coals from various seams that have been mined in the coal districts of Nova Scotia. The figures given for each constituent or characteristic are the average of all available figures (that is available to us in our records). They represent, therefore, the average quality of the coal in the different seams. Maximum and minimum figures also quoted represent the range of values encountered within the seam. Variations in quality between districts, between seams in a given district, and from place to place within the seams are indicated by the table.

Each of the constituents plays an important part in the utility of the coal and, therefore, in part control the uses to which the coal should be put. Two of these, ash fusion and thermal value, are of common importance in the use of coal as a fuel, the others play special parts for special uses. Two examples have already been given to show the special part played by certain characteristics. The effect of ash content can be clearly shown by a simple calculation.

Table III shows average ash content of Sydney area coals at 8.0%, while that for Pictou County is 13.7%. A shipment of one million tons of Pictou coal, therefore, means shipment of 57,000 tons more of ash or waste in comparison with a similar shipment of Sydney coal. The high ash content of Pictou coal as mined definitely limits the distribution of this coal. Obviously any steps that can be taken to improve the quality of Pictou County (or other) coals will expand the



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Dr. A. E. Cameron

possible markets to which that coal can be sent. This question, important to Pictou County particularly and also to Joggins, will be dealt with in detail later in this brief.





BY DR. CAMERON - The Tabel there (Table No. III, Proximate Analysis) is perhaps worth a minute. These are the results of public analysis and our own file, and they represent a total of over a thousand. Each area has a certain number of analysis which have been averaged to obtain averaged values for the different components. The average means, what could be accepted as an over-all production, and the maximum the best recorded to date, and the minimum (except for ash) the worst that has been produced. The Table gives a fair indication of the quality of the coals within the Province as we know them today.

BY MR. COHEN - I take it that the item "Sydney" as used there -

BY MR. CAMERON - That is a typographical error, it should be Cape Breton.

BY MR. FRAWLEY - Where were these analysis done principally, in Halifax?

A. No, they are the reports published in the Reports of the Department of Mines & Resources in Ottawa, the Geographical Survey Laboratories, and all of our own reports published from our own work.

Q. Did you expand upon that approximate analysis? There is a certain technical meaning?

A. They are these figures, Volatile, Fixed Carbon, Ash, Sulphur, and Thermol value. A complete analysis, would be the elements.

Q. Would you explain "Dry Basis"?

A. It means all of those affiliates fixed carbon, ash, have been aggregated for the moisture content. It varies of course with an individual shipment and in order to get a fixed point the moisture is eliminated and the calculation made on the dry basis.

Q. Does your information at all Doctor Cameron, give you the thickness of these various seams you have listed?

A. That will be in Table II when Table II is completed in so far as we can get it. We want Table II published as close to this as possible in its ultimate, and that has been our difficulty.

BY COMMISSIONER McLAURIN - You eliminate the moisture?

A. Yes.

BY MR. FRAWLEY - These methods are all set out in Stanfield's?

A. Yes. I would prefer that you get your information direct from him or from Ottawa.



TABLE NO. III  
PROXIMATE ANALYSES

				DRY BASIS															B.T.U./lb.		
COMMUNITY	SEAM	No. of Samples (Averaged)	Moisture Av.	Volatile Matter			Fixed Carbon			Ash			Sulphur								
				Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.			
Port Morien	Blockhouse	6	2.05	33.4	38.8	29.6	60.5	66.0	54.1	6.1	11.2	4.4	2.7	3.8	2.6	-	-	-			
	Bouthillier	2	1.8	32.9	-	-	48.9	-	-	18.2	-	-	8.1	-	-	12,000	-	-			
	Courrie or McAuley	19	2.8	35.6	40.2	28.2	58.3	66.4	54.5	6.1	10.5	4.9	2.9	3.9	1.7	13,740	14,310	13,000			
	South Head (Emory)	3	1.8	28.8	-	-	63.1	-	-	8.1	-	-	2.6	-	-	-	-	-			
	Spencer (Emory)	9	1.7	36.1	39.2	32.0	53.2	56.9	49.0	10.7	15.1	6.2	4.1	4.6	3.6	13,000	13,500	12,400			
	Emery	12	1.9	31.1	34.1	27.1	50.4	54.4	43.3	14.7	17.7	1.0	5.0	9.0	3.1	12,945	13,370	12,000			
	Hub	10	3.3	33.0	37.2	28.6	42.7	48.2	37.6	8.3	6.0	1.1	2.7	3.0	2.0	13,715	13,850	13,490			
	Backpit	3	3.0	30.1	-	-	43.6	-	-	26.3	-	-	9.4	-	-	10,500	-	-			
	Phalen	88	2.4	33.5	39.3	18.9	58.2	71.7	50.6	8.3	13.7	2.2	3.6	7.3	1.0	13,460	14,500	11,050			
	Emery	19	2.9	34.4	36.9	31.9	58.0	64.1	53.8	7.6	11.3	3.7	2.4	3.0	1.5	13,550	14,400	12,550			
Port Morien	Gardner or Lorway	15	2.3	33.0	37.0	26.6	57.0	68.0	43.4	10.0	27.0	2.8	4.4	11.6	1.2	13,260	14,540	12,910			
	Victoria or Harbor	46	1.6	37.0	39.5	29.6	60.0	69.6	53.3	3.0	11.1	2.0	2.2	4.6	3.6	14,475	15,110	13,930			
	Phalen (Phalen)	31	2.9	35.3	40.0	30.0	58.3	66.9	48.2	6.4	14.6	2.0	2.7	8.3	0.8	13,860	14,530	12,230			
	Main	31	2.0	37.4	40.2	24.6	56.9	69.7	44.2	5.7	16.3	2.9	2.9	6.2	0.7	13,900	14,340	13,260			
Port Morien	Lower Jubilee (Phalen Collins)	29	3.6	35.1	39.0	26.5	54.6	68.1	43.2	10.3	24.0	2.9	5.0	10.2	2.2	12,795	13,850	10,790			
	Upper Jubilee (Indian Cove)	14	3.8	36.4	34.6	32.2	49.2	52.6	44.0	14.4	23.8	10.7	6.6	10.1	2.2	12,100	12,750	10,730			
	Hillens	14	3.3	35.1	38.7	33.0	53.9	58.4	49.5	11.0	14.7	2.9	6.9	9.0	1.2	12,530	13,260	11,630			
	Fraser	2	4.4	33.9	-	-	58.1	-	-	8.0	-	-	4.8	-	-	13,120	-	-			
	Lloyd's Cove	1	4.0	37.5	-	-	59.1	-	-	3.4	-	-	-	-	-	-	-	-			
	Carroll	1	-	32.8	-	-	61.4	-	-	5.8	-	-	-	-	-	-	-	-			
	N.A. Nicholson	1	3.3	34.8	-	-	53.3	-	-	11.9	-	-	8.2	-	-	12,430	-	-			
	New Campbellton	7	4.8	37.1	40.8	33.4	53.0	59.6	48.6	9.9	12.8	7.0	5.7	7.4	2.4	12,850	-	-			
	W.N. McDonald	1	4.6	33.2	-	-	57.8	-	-	9.0	-	-	3.3	-	-	13,330	-	-			
	Lewlor-Loch Lomond	1	1.5	33.7	-	-	45.0	-	-	21.3	-	-	1.9	-	-	10,630	-	-			
Boulderie Island	1	4.0	38.1	-	-	51.2	-	-	10.7	-	-	7.1	-	-	13,410	-	-				
Springhill	No. 3	6	-	34.7	36.4	33.5	58.5	59.7	55.0	6.8	11.5	4.9	1.3	2.4	0.9	12,680	-	-			
	No. 1	5	1.4	33.4	39.8	31.4	61.1	63.3	58.0	5.5	10.6	3.4	1.5	2.2	1.0	13,670	14,410	12,405			
	No. 2	30	1.4	34.4	37.4	28.6	60.5	68.2	56.8	7.1	10.9	2.0	1.5	2.6	0.5	13,840	14,450	13,100			
	No. 7	16	3.1	34.8	37.2	29.7	57.8	61.5	53.1	9.4	13.5	2.9	1.6	2.3	0.8	13,540	14,490	12,730			
	No. 6	7	3.1	34.1	36.5	31.9	58.3	61.1	54.3	7.6	13.8	2.4	1.6	2.3	0.9	13,650	14,620	12,470			
	Fundy	16	3.2	38.6	43.2	35.9	49.2	50.9	43.3	14.2	19.5	9.4	6.6	12.3	4.9	12,110	12,870	10,960			
	Forty Brine	22	3.1	36.2	40.2	33.5	47.7	52.5	43.4	14.1	23.1	9.6	5.4	7.2	4.5	12,290	13,070	10,850			
	Westville	15	3.1	34.1	36.5	31.9	58.3	61.1	54.3	7.6	13.8	2.4	1.6	2.3	0.9	13,650	14,620	12,470			
	Queen	5	2.5	36.2	37.9	32.6	46.2	53.2	42.8	15.7	24.6	10.0	5.0	6.9	1.5	12,100	12,620	11,370			
	Joggins Bench	59	2.7	36.3	40.9	31.4	47.1	60.7	37.0	16.6	30.2	5.4	5.6	7.7	1.3	11,820	13,480	10,050			
	Chignecto	11	2.5	34.5	41.0	34.3	46.0	59.2	39.4	15.5	23.6	3.8	7.1	11.5	5.2	11,310	12,640	10,280			
	Styles	5	3.6	38.3	-	-	53.0	-	-	8.7	-	-	-	-	-	-	-	-			
	Lawson	2	-	43.8	-	-	45.5	-	-	10.7	-	-	7.3	-	-	12,505	-	-			
	Oxford	3	13.6	27.8	-	-	31.0	-	-	41.2	-	-	7.9	-	-	7,970	-	-			
	North Springhill	3	2.6	33.8	-	-	40.0	-	-	26.2	-	-	5.4	-	-	10,240	-	-			
Westville	Acaids Main	26	1.4	27.6	33.4	18.3	60.4	65.8	42.6	12.0	30.9	5.2	1.2	3.5	0.5	12,960	13,900	10,450			
	Scott (Second)	7	4.3	24.3	26.8	22.8	48.5	55.6	38.1	27.2	39.1	20.7	4.3	10.7	1.5	10,620	11,800	8,820			
	Third	12	2.2	29.9	31.8	28.5	56.4	58.6	53.0	13.7	16.0	10.3	1.3	1.4	1.1	12,730	13,120	12,460			
	Feord	59	1.7	26.1	34.0	19.9	65.5	68.5	50.4	13.4	28.1	7.8	0.8	1.5	0.5	13,115	13,810	12,460			
	Four Foot	3	3.4	29.6	-	-	55.6	-	-	14.8	-	-	1.4	-	-	12,830	-	-			
	Cage or Deep	16	2.1	29.0	31.7	20.5	60.0	70.4	56.9	11.1	13.5	8.7	1.2	2.1	0.9	13,050	13,540	12,700			
	McGregor	13	1.6	27.5	32.0	22.5	62.0	70.0	58.9	10.5	16.7	4.3	1.3	1.4	1.1	12,840	13,490	12,510			
	Flaming	5	1.7	28.5	29.9	27.7	57.3	58.5	53.2	14.2	14.7	13.2	1.2	1.4	1.1	12,650	13,080	12,590			
	Valle or Six Foot	27	3.4	30.3	34.8	23.2	54.3	65.5	48.2	15.4	22.7	10.3	1.0	1.5	0.7	12,370	13,450	11,480			
	McBeau	7	1.8	24.8	29.9	21.1	57.4	65.5	51.2	15.8	19.5	13.4	1.1	2.3	0.5	12,455	12,590	11,720			
Miscellaneous	Pottery (Moore)	2	0.6	23.0	-	-	69.6	-	-	7.4	-	-	0.6	-	-	-	-	-			
	Montreal - Pictou	2	4.9	23.6	-	-	68.2	-	-	8.2	-	-	-	-	-	-	-	-			
	No. 4 (Westville)	1	1.3	22.9	-	-	33.3	-	-	43.8	-	-	8.8	-	-	7,900	-	-			
Port Hood	Main	21	3.5	35.5	39.5	30.6	52.3	63.6	46.1	12.2	18.6	5.8	7.3	8.9	1.1	11,710	12,770	10,500			
	Three Foot	1	15.7	36.2	-	-	54.9	-	-	8.9	-	-	2.1	-	-	10,710	-	-			
	Seven Foot	62	4.8	46.8	46.6	33.9	48.2	59.4	39.2	11.0	19.5	3.8	6.2	10.5	1.7	12,190	13,230	10,480			
	Thirteen Foot	39	6.4	39.5	45.0	33.8	47.7	54.7	38.0	12.2	28.2	6.5	7.6	15.5	3.8	11,750	13,240	9,250			
	Forty-two Inch	4	8.0	40.4	-	-	45.3	-	-	14.3	-	-	5.3	-	-	10,710	-	-			
	Forty-nine Inch	1	4.9	40.8	-	-	47.5	-	-	11.7	-	-	7.8	-	-	12,300	-	-			
	St. Rose	5	4.9	37.0	-	-	50.6	-	-	12.4	-	-	7.3	-	-	12,270	-	-			
	McBeau	15	4.6	39.9	38.4	30.7	52.9	58.5	39.7	11.2	29.6	3.1	3.8	6.3	1.1	11,440	14,380	9,150			
	Chimney Corner	5	6.9	37.5	-	-	56.7	-	-	8.9	-	-	4.4	-	-	12,090	-	-			
	Inverness	2	20.7	42.5	-	-	48.2	-	-	9.3	-	-	3.5	-	-	10,460	-	-			
Miscellaneous	Thirty-four Inch	1	10.6	43.7	-	-	46.2	-	-	10.1	-	-	4.8	-	-	11,790	-	-			
	Lockinson Brook	1	5.6	33.9	-	-	51.7	-	-	14.4	-	-	3.3	-	-	10,970	-	-			
	Birch Cove	1	2.7	28.0	-	-	40.7	-	-	31.3	-	-	1.3	-	-	9,860	-	-			
	Port Ben	2	6.1	46.9	-	-	37.8	-	-	15.3	-	-	8.8	-	-	11,220	-	-			
	MacLaren's	1	4.5	35.2	-	-	58.9	-	-	5.9	-	-	0.7	-	-	14,000	-	-			
	Big River	1	9.9	39.1	-	-	48.5	-	-	12.4	-	-	5.2	-	-	11,600	-	-			
	Broad Cove 5'	4	7.4	31.7	-	-	57.4	-	-	10.9	-	-	1.4	-	-	-	-	-			
	Broad Cove 4'	1	8.5	31.0	-	-	62.1	-	-	6.9	-	-	-	-	-	-	-	-			
	Broad Cove 7'	3	4.0	22.8	-	-	71.6	-	-	5.6	-	-	-	-	-	-	-	-			
	Kemptown	Kemptown	28	1.1	18.5	23.6	12.7	64.5	78.5	49.6	17.0	26.8	5.2	1.2	1.8	0.5	12				





PROVINCE OF NOVA SCOTIA  
Coal Production (in Tons 2,000 lbs.) by Counties and Communities  
Fiscal Year ending November 30 th.

1935 - 1944

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Municipality	Mine	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	Totals
Gloucester	Dominion No. 18	767,056	745,694	833,622	740,772	746,729	841,558	768,094	757,220	752,288	608,667	7,561,060
	Dominion No. 2	938,467	815,977	895,009	788,694	717,683	604,364	472,182	397,525	298,560	249,719	6,138,180
	Dominion No. 4	500,895	464,194	558,802	484,066	508,577	577,456	503,609	557,186	513,978	458,223	5,146,414
	Dominion No. 5	40,739	46,462	51,093	30,370	964	964	323,782	317,707	348,458	345,458	1,684,414
	Dominion No.10	304,418	296,222	325,608	271,767	277,757	317,707	182,667	46,829	103,094	128,360	2,886,794
	Dominion No.11	391,334	411,461	460,873	513,053	577,456	641,558	768,094	757,220	752,288	608,667	8,561,060
	Dominion No.24	247,584	215,561	229,906	199,573	235,440	406,403	273,351	234,000	204,000	361,000	2,003,000
	Dominion No.25	.....	.....	.....	.....	271,170	264,881	257,374	257,374	257,374	257,374	2,395,935
	Dominion No.26	.....	.....	.....	.....	.....	.....	39,385	47,517	64,311	64,311	121,233
	New Broughton	.....	309	2,607	.....	.....	.....	.....	.....	40,775	40,775	40,775
Silver Lake		475	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,916
Totals		3,190,968	2,945,900	3,222,400	2,828,345	2,971,438	3,325,824	2,883,947	2,692,582	2,361,797	2,143,659	28,506,660
New Waterford	Dominion No.12	853,877	816,630	821,630	733,412	819,289	909,761	682,028	818,558	140,047	474,242	1,374,145
	Dominion No.16	403,277	421,712	471,077	459,377	493,465	612,340	574,766	611,477	532,933	592,755	5,149,934
	Dominion No.18	.....	.....	.....	17,327	42,721	82,811	214,310	200,492	230,568	196,722	1,038,133
Totals		1,257,154	1,238,342	1,292,707	1,192,789	1,312,754	1,522,101	1,256,794	1,430,035	675,970	1,067,000	6,524,079
Sydney Mines	Black Diamond	.....	.....	.....	958	2,390	1,035	.....	.....	.....	.....	4,383
	Florence	314,414	301,062	304,076	248,877	290,985	298,099	322,899	295,922	272,318	278,364	2,931,516
	Greenor	12,093	8,222	7,402	9,126	8,195	7,422	8,468	21,444	20,933	16,603	120,948
	Last Chance	8,614	1,060	.....	.....	.....	.....	.....	.....	.....	.....	20,794
	Malvern	4,016	6,259	6,301	3,432	786	.....	.....	.....	.....	.....	20,794
	Princess	412,600	362,711	417,150	367,993	379,387	411,361	411,921	462,945	400,914	413,757	4,060,739
	Stanley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,123
	Sullivan (Indian Cove)	9,877	8,425	13,172	16,639	15,337	1,314	1,949	990	.....	.....	6,764
	Sullivan	.....	.....	.....	.....	.....	14,520	16,947	14,236	11,020	13,146	69,861
	Thompson	.....	.....	.....	872	2,761	5,102	.....	.....	.....	.....	8,711
	Townson	.....	.....	.....	.....	.....	1,652	9,613	10,321	14,439	14,867	50,892
	Tom Pit	31,925	32,782	39,322	39,002	35,663	37,324	24,190	.....	.....	.....	240,288
Totals		793,759	741,621	791,433	686,905	735,524	778,083	795,987	805,858	719,614	736,739	7,585,523
Bras d'Or	Bras d'Or No.5	.....	.....	.....	.....	.....	.....	.....	.....	1,558	9,676	11,234
	Colonial No.1	136,736	113,894	136,123	129,598	134,695	160,113	152,672	127,537	79,681	72,679	1,287,222
	Franklin	.....	.....	.....	.....	3,463	6,092	12,160	39,677	61,062	37,687	186,048
Totals		136,736	113,894	136,123	129,598	138,158	166,208	164,832	167,214	140,743	110,366	1,473,110
Totals		5,360,577	5,041,063	5,448,193	4,828,944	5,803,625	5,875,038	5,301,772	5,346,563	4,433,455	4,284,799	51,140,049
Springhill	Springhill No.1	59,792	57,571	71,343	61,327	107,467	161,795	211,420	209,466	136,056	131,356	1,204,353
	Springhill No.2	336,357	305,048	379,593	301,376	338,022	338,022	345,471	345,471	276,372	292,092	3,230,615
	Springhill No.4	50,576	54,392	151,448	163,169	173,592	189,119	169,723	221,017	236,197	171,736	1,572,969
	Springhill No.6	152,571	131,215	1,462	.....	.....	.....	.....	.....	.....	.....	2,774
Totals		602,496	548,226	634,446	527,844	613,061	613,061	727,214	735,214	643,214	611,214	6,290,715
Joggins	Arseneau	.....	.....	.....	.....	.....	.....	6,444	7,268	.....	.....	13,712
	Bayview No. 8	.....	.....	.....	.....	22,776	98,189	123,351	133,616	127,873	121,479	627,286
	Beach Hill	.....	.....	.....	.....	2,177	7,904	6,628	.....	980	.....	17,689
	Cross Cow	690	.....	.....	.....	.....	.....	.....	.....	.....	.....	690
	Hillcrest	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	690
	Maple Leaf No.4	81,930	70,124	40,746	70,314	33,824	.....	30,636	115,574	84,861	92,257	323,730
	Maple Leaf No.5	.....	.....	.....	.....	.....	.....	.....	.....	4,726	.....	4,726
	Seashore	30,643	22,342	22,298	24,475	25,742	2,512	4,672	5,392	.....	.....	136,621
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals		113,263	92,466	63,044	94,789	81,942	102,878	173,012	266,880	218,962	213,736	1,422,392
River Hebert	Kimberley	.....	2,075	.....	.....	.....	.....	.....	.....	.....	.....	2,075
	Miner	2,340	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,340
	Strathcona No.2	20,069	18,973	18,768	18,768	18,768	18,768	18,768	18,768	18,768	18,768	187,678
	Victoria No. 4	84,505	50,966	25,593	51,097	51,666	66,618	31,645	.....	.....	.....	362,092
	Waddell	.....	.....	.....	.....	.....	.....	.....	.....	362	773	1,125
Totals		106,914	68,014	60,235	65,665	78,486	121,936	102,168	81,214	65,197	73,497	823,520
Chimaco	Jubilee	.....	108	.....	.....	.....	.....	.....	.....	.....	.....	108
	Lewer	371	559	318	505	.....	.....	.....	.....	.....	.....	1,753
	Lewson No.3	.....	.....	.....	.....	55	431	.....	.....	.....	.....	486
	Sartin	187	30	.....	.....	.....	.....	.....	.....	.....	.....	217
	Sherry, J.P.	227	.....	.....	.....	.....	.....	.....	.....	.....	.....	227
Totals		785	697	318	505	55	431	.....	.....	.....	.....	2,791
Totals		823,458	709,403	757,743	689,003	773,564	868,925	1,002,168	1,083,423	929,604	868,377	8,545,688
Stellarton	Acadia No.7	.....	64,440	64,556	79,990	102,004	149,609	102,117	64,565	46,316	623,946	623,946
	Albion & McGregor	210,522	175,221	162,655	162,655	186,209	267,340	236,774	208,774	203,153	186,272	1,931,157
	Allen	155,101	163,666	163,666	135,735	177,415	190,862	179,323	132,357	120,162	123,204	1,561,666
Totals		371,623	347,129	341,159	362,928	443,614	526,606	485,214	443,212	387,940	355,792	4,176,767
Austville	Drummond No.1	66,201	57,732	16,785	87,949	74,805	95,484	76,598	56,283	47,286	46,881	709,004
	Drummond No.2	75,004	79,886	111,746	109,854	61,656	120,201	80,447	109,707	91,341	78,117	718,773
	Drummond No.3	31,357	26,759	29,016	31,360	29,713	39,048	26,251	23,280	22,745	21,583	278,752
Totals		172,562	174,123	227,549	229,163	166,374	247,733	199,296	190,020	169,378	160,561	1,999,641
Thorburn	Acadia No.3	82,471	71,193	61,272	37,144	1,689	.....	.....	.....	.....	.....	253,769
	Greenwood (Old Slope)	.....	.....	2,130	965	1,120	.....	.....	.....	.....	.....	6,215
	Hillcrest	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	418
	Millford No.1	64,166	48,965	51,799	44,863	32,704	50,606	17,322	.....	.....	.....	310,444
	Millford No.2	.....	.....	.....	464	7,441	9,624	30,666	41,466	36,205	30,711	156,811
Totals		146,637	120,158	115,201	83,476	42,994	60,429	48,010	41,488	36,205	30,711	726,017
Totals		693,862	642,160	761,909	675,567	672,942	828,366	772,490	674,720	593,523	547,084	6,862,645
Inverness	Campbell	.....	.....	.....	.....	.....	.....	.....	.....	.....	180	180
	Inverness	134,082	126,749	154,628	135,826	94,575	139,770	124,664	105,679	85,139	84,702	1,185,041
	Macdonald	.....	.....	.....	.....	.....	.....	.....	.....	1,462	6,578	8,040
	McLellan	.....	.....	.....	.....	.....	.....	.....	.....	1,462	777	921
	Rosebank	.....	.....	.....	.....	.....	.....	.....	.....	1,064	1,052	2,123
Totals		134,082	126,749	154,628	135,826	94,575	139,770	124,664	105,679	87,779	93,282	1,197,264
Port Hood	MacDonald	.....	.....	.....	.....	.....	.....	.....	.....	.....	312	312
	Port Hood	9,259	9,168	23,380	39,646	3,018	968	.....	.....	.....	.....	65,441
Totals		9,259	9,168	23,380	39,646	3,018	968	.....	.....	.....	312	65,753
Saint Rose	Saint Rose	1,168	1,110	2,400	1,813	3,207	2,714	3,801	1,603	.....	.....	1,168
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals		1,168	1,110	2,400	1,813	3,207	2,714	3,801	1,603	.....	.....	1,168
Totals		144,509	137,027	180,408	177,287	100,800	143,452	128,605	107,282	.....	.....	.....
Lebert	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals		.....	.....									



Continues Brief.III - COMMUNITY PROBLEMS

Community development adjacent to any industry normally exceeds the actual need for capacity production, and this is desirable because it assures a surplus labor population, which in turn gives a pool of labor for fluctuating demands of output. Sickness, holidays, absenteeism have to be met from the pool.

BY COMMISSIONER MORRISON - What do you mean by surplus?

A. Perhaps the next sentence will explain: "It is an accepted principle of industrial development that a fundamental need for any industry is an adequate source of competent labor."

Q. In one place you say "an adequate source" and in another a "surplus". Where will you draw the line?

A. That is a very difficult one to draw. Usually about 10%. There is need of cover to take care of the surplus.

Q. Like groceries on a shelf?

A. Yes. The alternative is to have one man for one job only and if he is sick the job is not done.

Continues Brief

Development of the war industries during the past five years in or near large communities or in densely populated areas has emphasized this principle.

BY MR. COHEN - Did I understand the Dr. to say that it is his opinion there should be a 10% reserve with respect to labor surplus?

A. I would not want to fix any figure but there has to be an excess supply. I think that is true in any industry.

Continues Brief

In Nova Scotia the coal industry has developed to what may be termed a stabilized productive capacity. Community development, however, due to the long period of growth of the industry and to certain boom periods within that time, is appreciably in excess of the needs for capacity production, even including the surplus pool of labor. A limited growth of the industry is necessary to relieve the general community condition and particularly to take care of the additional conditions which will arise upon





demobilization of the Armed Forces.

Community security demands security for and regularity of income for the workers in the industries carried on in the community. This is particularly so in those cases like mining where the community has only one source of employment. As all mines have a limited life only, continuity of employment requires orderly development of reserves adjacent to the community. This in turn is predicated on complete assessment of the reserves and their allotment to successive developments to assure gainful employment for a given number of workers for a long period of time. It will be shown later that economic operation of mines winning coal at depth requires increased production per man employed so that the actual number of employees required for economic operation in any one period of the mine's existence may not change materially, although the rate of depletion of the reserve probably will increase.

Community security requires a close balance of these factors. A normal increase in the available workers in the community must be met. Overdevelopment requiring an influx of new manpower, while increasing the material size of the community, will only decrease the reserves and shorten the life of the community. Long range planning for each community and an acceptance by the community of the size limit, increasing only with natural growth both of mine and labor force, are necessary to assure community security.

#### Workers' Income

A primary obstacle to regularity of income to the workers in the coal mines is the seasonal nature of annual demand for coal. Fluctuations in market demand require a fluctuating labor force, and this tends to periods of maximum work and pay followed by periods of idle days and scanty income. Annual income may remain relatively stable. Weekly or monthly income, upon which the worker must live from day to day, will vary greatly. Education of the workers to "save for a rainy day" is necessary but difficult. Uniformity of production and regularity of operation are normal





controls for this factor. These require an assured market or at least an assured income to the mine to cover labor costs on coal produced, whether the coal finds an immediate market or not.

Danger of excessive carrying charges on coal mined but not sold immediately is largely responsible for irregularity of operation due to irregularities of market demand.

The Province can control the rate of depletion of individual reserves for community existence and thereby assist in community security. It cannot control markets.

#### Employment by the Mines

Every mine has a limited life. The community, however, tends to be permanent. To assure that permanence a new mine, if available, has to be prepared for and planned before the first one dies. In Nova Scotia the easily accessible and, therefore, easily developed coal has all been extracted. New mines to keep the equivalent of the present working force employed and to give work for new employees or returning men will require careful consideration and planning. To be successful they must produce at as low a cost as possible. That means, today, maximum mechanization. But more mechanization means less workers in the mine. Mechanization also means large capital outlay which can only be recovered through large daily tonnage if costs per ton are to be kept at a minimum. In the past, Nova Scotia mines have been profitable and successful operations when production has been  $2\frac{1}{4}$  to  $2\frac{1}{2}$  tons (2,000 lbs.) per man-day; and many small, near surface mines were able to exist and give employment to a considerable number of workers and, therefore, support a considerable number of communities. In the future the factors of relative inaccessibility and the high cost of mechanization will require large operations and large daily tonnages for a relatively small labor force. Mechanization requires four to six tons per man per day for economical operation. The whole tendency will be to reduce the number of workers in the industry unless markets can be found for the new production.

Production of the mines in each community or field is the best indication of community prosperity. Table No. IV summarizes



the coal fields, the communities and the production of the mines giving work to each community during the ten-year period 1935 to 1944 inclusive. The Table shows that, during that period, 73 mines or coal prospects have reported production; 41 mines produced coal in 1935 and 40 hoisted coal in 1944; only 21 mines producing coal in 1935 also produced in 1943. (I think that is a misprint, it should be 1944). 9 mines formerly producing over 30,000 tons per annum closed during this period because costs of production could not be met by sales returns. 9 new mines have become substantial producers.

Close study of the table shows the history of the communities. The stabilizing influence of the operations of the large corporation is clearly shown at Glace Bay, New Waterford, Sydney Mines, Pictou and Springhill. A similar effect is shown by the larger independents, Bras d'Or Coal Company at Bras d'Or, Intercolonial Coal Company at Westville, Inverness collieries at Inverness, Greenwood Coal Company at Thorburn, and the Maritime Coa, Railway & Power Company and its subsidiaries in Joggins. It is not too much to say that these smaller communities would have ceased to exist but for the efforts of these independent operators.

14 mines, or mining prospects were opened during the period but closed again before developing to an operating stage. Expenditures on these were a direct financial loss to the organizers and the work done has only resulted in making future operations at the same site more difficult and expensive.

The rise and fall of these operations gave temporary work to local bodies of men. It is perhaps significant that developments came into being at periods when there was slack work in the major operations due to inadequate markets. The war has had a similar effect though for the opposite reason.

Q. What meaning do you give to the word "developments" in the second sentence there. I don't quite follow it?

A. "These" developments, in place of "that". Of the 14 mines that rose and fell, they have been try-outs to get quick cheap coal.





Continues Brief

There is no reason to doubt that, during the past four years the workers could have been put to more effective use in the larger operations if they had been willing to apply for or accept work there.

It is obvious that each new development must be closely controlled if it is not to interfere or compete with existing operations. Otherwise the livelihood of an existing community elsewhere will be threatened, although there still remains coal which will maintain the older operation and its working force.

Orderly development of reserve is necessary. The paramount provincial responsibility is the order and extent of each new development to assure minimum interference with the livelihood of existing communities.

BY THE CHAIRMAN - The time will come I presume Doctor, when a place like New Waterford, all the coal will be mined. Did it ever occur to anybody that something should be done to rehabilitate the people of that community who are not in a position where they can get work near their homes?

A. The time element will come in there. Looking to New Waterford -

Q. I am only taking that as an example.

A. We are today attempting to extract the last remnants of coal in Inverness in order to keep that community going for the greatest possible time.

Q. Any scheme for the rehabilitation of the people there?

A. There have been in other Provincial Departments definite schemes.

Q. That mine is operated by the Government of Nova Scotia. I have been thinking that in the past something should have been done both by the Government and by the operators of coal in this country to lay aside a fund, a couple of cents a ton, and put it in good administrative hands, Trust Company or Governmental administration, to look after that very thing. Not in the nature of a pension at all, but in the nature of rehabilitation purposes, get them out. If a man builds a house in New Waterford 20 years ago, and 20 years hence it is of no value to him, to be in a position to help that man out and get work. You can see if that had been done 20 years ago



the tremendous amount of money that would be stored up today. I am just throwing that out as a hint. I have not discussed it with my two Commissioners. The great discouraging thing about the coal mining here is its sense of insecurity for the future. We hear so much of this and that mine closing down and having a very indefinite future and the coal miner begins thinking and it discourages him, his sense of security for the future is gone, and I think it interferes with his productive capacity to some extent. I am only throwing that out as a suggestion.

Continues Brief

Productive capacity of the coal fields at any time can be estimated on the basis of the maximum annual production of each mine that operated consistently throughout a period of time together with that of new mines brought into substantial production during the period. It can be assumed that the older mines are in condition to or can be readily brought up to that production. The average working force for the same peak years will also show the normal labor force required under existing conditions in the fields.

Table No. V summarizes this information.

The table shows a total productive capacity of approximately 7,700,000 tons capable of giving regular employment (250 days per year) to 13,000 men.

That question of average working force is one that is struck in the Annual Report of Mines by dividing the days worked by the number of shifts worked. Shifts are reported, and there may be more than one shift by one man, or there may be more than one shift worked, but by dividing the days worked by the number of shifts is how that figure is arrived at.

Continues Brief

These figures indicate capacity production at 585 tons per year per man. The annual productive capacity calculated in this way is about 500,000 tons less than that usually considered available.

I think if I remember correctly, the Dosco figures ran eight million four hundred thousand, or something like that.





Continues Brief

It probably represents the best overall production on basis of both equipment and labor.

Pre-war employment in the coal mines was slightly over 13,000 persons, although pre-war production averaged only 6,750,000 tons per annum, representing production at less than 520 tons per person per year.

It is expected that some 2,500 persons returning from the Armed Forces will require employment in the mines.

BY THE CHAIRMAN - Of course there will be the dropping off of men from time to time? For instance I see with Caledonia colliery 12 or 14 men were put on the pension list.

A. Yes, but that comes and goes. We are dealing with average figures.

Continues Brief

These will be in addition to the normal pre-war labor force of 13,000. Effective employment of this working force of 15,500 persons at a productive capacity of 585 tons per annum should yield a total production of about 9,000,000 tons per annum.

An increase in production to this annual total and regular stable markets for it will overcome many of the general difficulties now facing the coal mining counties in the Province.

Distribution or allotment of this increase will be discussed later in this brief.

Now the Table sir again. There are two tables. The first is a complete table showing a 10 year production of the mines in Nova Scotia, 1935 to 1944. The 1944 figures are here given subject to final revision. Taking the maximum production on each of these figures on Table IV, Table V was built up. Table V shows the mines that operated over the 10 year period or came into subvention production during the 10 year period. The word maximum production and the days worked that year, the average daily force and total tons. Dividing the days worked into the total tons we get an average per man.





BY COMMISSIONER MORRISON - For the 10 year period?

A. The peak production of any one mine within the ten year period. In other words, if it did that once it could do it again.

Q. At that point Dr. Cameron you took maximum production?

A. I took the one year of highest production from each of the mines. Dominion No. 1B was 1940 with 841,458 tons. Again No. 2 was in 1941 with 472,182 tons, and so on. And for the same years we have the actual days worked and the average number of men employed for that year. Now if we divide the total tonnage for the year by the number of days worked we get tonnage per day average which is a maximum in the 10 year period for that mine. It is not the peak production of any one day, because you cannot expect peak for 365 days a year.

BY MR. FRAWLEY - Is it worthy of comment that the 8 Dominion mines at Glace Bay run from 302 days worked down to 242?

A. No. 25 is a relatively new mine and the maximum production was run this year.

Q. Take 7 of these mines?

A. Those are the days worked reported to us. True if they produce 3,449 tons for the 365 days in 1940, No. 1B would have a greater capacity. But if you take a maximum year over the 10 year period, that is the best you can expect the mine to do.

BY THE CHAIRMAN - Under those conditions?

A. Yes.

Q. But of course it does not show capacity production of a mine.

A. No, I say it is at least 500,000 tons less, my total.

BY COMMISSIONER MORRISON - Let us take 1B. The tendency of 1B would be less production from the same number of men?

A. How do you mean?

Q. Submarine mining, going further to the deep and longer haulage.

A. Yes, but those things have to be overcome by other means if we are going to keep up this production capacity.

Q. Then projecting this into the future, it is subject to if we do this, and if we do the other thing?

A. We are projecting this into the future on the basis that any of



these things must be, and should be overcome to keep this capacity up.

Q. I am not quarreling with your method, but somebody has to raise their sights.

A. I attempted to raise the sight to nine million on the basis of this production.

BY MR. COHEN - I wonder if the Doctor has the absolute number at any time during 1944 of the persons employed in these mines. The table of course gives average, and you have given us the absolute number in an approximate sense as to the pre-war situation by referring to over 13,000. Can we get anything of that character with respect to 1944, or somewhere near the present month.

A. I have one for 1943, but as I was going to try and point out, we receive, our records give us shifts worked and days worked, they don't give us payrolls, so we do not know the names of the men working. We don't know the complete list of men employed constantly in any one mine. We get the number of shifts worked and the number of days, so if we divide one by the other we say it is an average working force. What surplus was on the payroll is another question.

BY THE CHAIRMAN - I think we are getting the information which covers that Mr. Cohen.

BY MR. COHEN - That was being furnished by the Dosco Company. I was thinking of the Province as a whole.

BY DR. CAMERON - The question of obtaining those figures. We can get them for 1944, or for any one year as we use them.

BY THE CHAIRMAN - I think what Mr. Cohen was interested in was your striking an average. You are not getting the actual, you are striking an average of the working force. I think he wants the actual force that was operating in the Province of Nova Scotia for 1944, the actual number of miners.

A. I think that would be very difficult. There may be a man employed one day, or ten days, or 250 days. The turnover is immense.

BY MR. FRAWLEY - And if he gets an extra shift, then that is two men?





TABLE NO. V  
PRODUCTIVE CAPACITY AND WORKING FORCE  
PRINCIPAL MINES OF NOVA SCOTIA  
TEN YEAR PERIOD 1935-1944

City	Community	Mine	Year of	Days	Average	Production		250 Day	Capacity
			Maximum		Daily	Total	Per Day		
			Production	Worked	Force			Manpower	Production
Cape Breton	Place Bay	Dominion No. 1B	1940	244	1,178	841,458	3,449		
		2	1941	285	826	472,182	1,657		
		4	1940	243	658	577,456	2,376		
		11	1940	242	634	245,849	1,016		
		20	1940	249	484	404,403	1,624		
		24	1940	246	444	271,170	1,102		
		25	1944	302	146	64,311	213		
		26	1944	266	71	40,785	153		
		Totals			4,441	2,917,614	11,590	4,445	2,900,000
	New Waterford	Dominion No. 12	1940	264	1,156	909,761	3,446		
		16	1940	244	965	612,345	2,510		
		18	1942	272	364	250,892	922		
	Totals				2,485	1,772,998	6,878	2,485	1,720,000
Sydney Mines	Florence	1941	242	693	322,899	1,334			
	Greener	1941	286	20	21,848	76			
	Princess	1942	222	898	462,945	2,085			
	Sullivan	1941	274	26	16,947	62			
	Totals			1,637	824,639	3,557	1,635		890,000
Bras d'Or	Colonial No. 1	1941	288	343	192,572	669			
	Franklin	1943	309	121	61,026	198			
	Totals			464	253,598	867	465		220,000
	Totals						9,030		5,730,000
Cumberland	Springhill	No. 1	1941	264	572	211,420	801		
		No. 2	1937	258	660	379,893	1,472		
		No. 4	1943	246	477	238,197	968		
		Totals		1,709	829,510	3,241	1,710		810,000
	Joggins and River Hebert	Bayview No. 8	1942	296	189	133,618	451		
		Hillcrest	1942	301	160	115,974	385		
		Strathcona No. 2	1942	290	151	81,214	281		
		Totals		500	330,806	1,117	500		280,000
	Totals						2,210		1,090,000
Pictou	Stellarton	Acadia No. 7	1941	291	173	109,689	377		
		Albion & McGregor	1941	286	486	236,172	826		
		Allan	1940	278	481	190,862	686		
		Totals		1,140	536,723	1,889	1,140		472,000
	Westville	Drummond No. 1	1940	288	165	95,484	332		
		Drummond No. 2	1940	227	165	120,201	538		
		Drummond No. 5	1940	295	67	32,048	108		
		Totals		397	297,733	970	400		242,000
	Thorburn	Milford Nos. 1 & 2	1941	267	107	48,010			
		Totals		107	48,010	180	110		45,000
	Totals						1,650		759,000
Other Fields	Inverness	Nos. 1 and 5	1943	283	218	85,139	301		
	Miscellaneous	1942-43		230	123	43,795	190		
	Totals			341	128,934	491	340		123,000
PROVINCE	Totals						13,230		7,702,000



BY DR. CAMERON - That Table V was made up on that principle.

BY THE CHAIRMAN - Like Mr. Morrison, I am not quarreling with the method of it.

CONTINUES BRIEF

IV - REGULATION OF MINING

Mining Problems. Problems involved in the mining of

coal vary from district to district, depending on both the physical attitude of the seams and the physical and chemical characteristics of the coal. Mining practice in each field or each mine has many points of similarity but, nevertheless, each mine has its own particular problems requiring individual attention. Mining practice controls both recovery and safety, and provincial interest demands government attention to the mining problems.

There are no flat seams of coal in Nova Scotia, all the known coal seams outcrop at the surface (or beneath the sea) and pitch or dip down at angles of from less than five degrees (Sydney area) to 85 degrees (Mabou).

First reports of coal mining in Nova Scotia are to be found in the French records of the early 17th century (circa 1620). Intensive search for coal has been made throughout the centuries since that date and, with one possible exception, it can be assumed that no further now, i.e., previously undiscovered, seams will be found in the future, unless they are discovered overlying existing submarine workings and with a submarine outcrop.

The exception is at Southampton or Halfway River, Cumberland County, where geological structures indicate there may be coal seams at depth. The presence, thickness, areal extent and quality of this coal has still to be determined.

It has been marked by one drill hole.

BY MR. FRAWLEY - That area in Halfway River, is that under lease or still in the hands of the Crown?

A. Still in the hands of the Crown.

CONTINUES BRIEF

The logical mode of attack of any coal seam is at the



outcrop as coal obtained in development can be sold to help defray the costs of development. Outcrops are thus a temptation to exploitation. The known coal seams of the Province have all had more or less work done upon them at and near the outcrop. Many a coal mine or coal prospect has started only to cease operations because the seam was too thin or too dirty or too badly broken to compete with more successful ones. The operations, however, carrying on for a few years, left the near crop coal "gopher-holed" and damaged.

BY THE CHAIRMAN - Why do you use that "gopher" business. We have none of those in Nova Scotia.

A. Badger hole might be better sir. As a matter of fact it is a commonly used term.

CONTINUES BRIEF

Today they are full of water. Successful development of the coal to the deep when economic considerations make the seam otherwise profitable, must first overcome these obstacles from past operations. All the new coal mines of the future will face these handicaps to their successful development. The McBean seam at Thorburn, Pictou County, the Seven Foot seam at Port Hood, and the Eleven Foot seam at Mabou, Inverness County, the Morien area, Cape Breton County, are present day examples of delayed successful development because of these handicaps. Each of these areas had communities develop about their outcrop coal and each has become a depressed area as the outcrop mine ceased to operate.

BY THE CHAIRMAN - They are better off at Mabou than they ever were.

CONTINUES BRIEF

The problems of winning coal from a mine increase with increasing distance from the outcrop. The problems of ventilation, of haulage, transportation of men and materials, require increasing tonnage to carry the costs. In pitching seams the increased distances result in increased problems of roof control. The Drs. Gray report, "on the basis of experience so far gained ..... it is calculated that the limit of submarine extensions of the workings imposed by daily travel underground is  $6\frac{1}{2}$  miles from the





shore".

BY THE CHAIRMAN - Before leaving that question of Mabou and Port Hood, Port Hood where they have a 7 ft. seam, and Mabou where they have an 11 ft. seam. Do I understand from this report that that coal so far as economics are concerned, is lost?

A. I come on to that later on in the report.

BY COMMISSIONER MORRISON - They are not clean seams?

A. No, they are not clean seams.

CONTINUES BRIEF

And, "In the Sydney seams, experience has shown that, after a cover of 1,000 feet has been obtained, only longwall methods will achieve total extraction of the coal seam". They report experience at Springhill indicates, "that 4,000 feet of cover may prove to be the economic limit imposed by difficulties of strata weight." Based as they are on practical experience over many years of efficient mine design and operation, these estimates can be taken as a reasonably accurate interpretation of the general mining problems facing the coal industry of Nova Scotia.

The Provincial interest requires that maximum recovery be attained in each operation or seam to prevent loss in pillars or from inaccessibility resulting from abandoned workings before the mineable limit is reached.

BY MR. FRAWLEY - Why do you say Provincial interest has to do with loss in pillars?

A. To prevent loss in pillars.

Q. From the standpoint of your royalty interest?

A. Well from the standpoint of overall recovery of coal. The maximum utilization of the reserves.

Q. Not to have more left in the pillars than need be?

A. Not more than need be.

CONTINUES BRIEF

An orderly development of the known reserves is the surest method by which these objects can be obtained.

Mechanization

Mining practice controls the life of the mine and thus of the community. Mining practice constantly changes. Hand pick

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mining gave way to machine cutting, room and pillar mining is replaced today by longwall, ropes and winding engines or locomotives are replacing horses for haulage, electricity is replacing compressed air for motive power. Each change increases the efficiency of mining but does not necessarily decrease the hazards. It may or may not increase the recovery of coal.

BY COMMISSIONER MORRISON - At that point Doctor, to what extent is electricity permissible for mines in Nova Scotia?

A. That is a question which we have very much in mind today, and I mention later as to what attempts are being made to get uniformity. They are, approved flame-proof equipment, or otherwise in fresh air only. Generally, I think that is the broad picture. There are strict regulations regarding the use of it in mines.

Q. And must continue to be so?

A. Yes.

Q. Having regard to the human factor?

A. Yes.

BY MR. COHEN - Unless our factories continue to develop in relation to electricity as they have so far developed. Why shut that out?

BY COMMISSIONER MORRISON - There is also a gas problem, Mr. Cohen.  
CONTINUES BRIEF

With the exception of mechanical loading at the coal face, the larger operations within the province are highly mechanized. Some improvements in type of equipment are possible and these can be expected in newer developments. Their installation in existing sections of the mines would involve heavy capital costs.

Mechanization means motive power and the motive power must be either brought down the mine from the surface or generated within the mine. Today compressed air is largely used, produced at the surface and delivered through pipes. Compressed air is inherently safe but cost of pipe and installation, maintenance, power required to generate, and friction loss of pressure, limit its usefulness. Electricity is replacing air. Electrically operated machines are more compact than air powered, and this is





important in confined spaces; also, trailing cables are easier to handle than 2" diameter air hose. Electricity is flexible but involves inherent hazard of spark or flame and safety to the miners requires "permissible" or "flameproof" equipment, because of the gas content of the mine air. Limitations of safety must be met and these involve extra cost in equipment, installation, maintenance and operation.

European coal mining practice is developing the use of diesel engined automotive equipment underground and appreciable savings in production costs are claimed. Their applicability to Nova Scotia conditions of deep and submarine mining will depend upon the way in which inherent hazards of fire and noxious gases are met. Limited access to workings and long air courses required for Nova Scotia mines will materially affect the usefulness of this equipment.

#### Mechanical Loading

Mechanical loading at the coal face is not practiced extensively in Nova Scotia. Both air and electrically operated equipment are available for mechanical loading in narrow workings. Equipment for longwall operations on pitching seams, still requires considerable development. The application of existing mechanical loaders to Nova Scotia mining will require return to room and pillar mining with a probable loss of coal, particularly in the deep mines, because of inability of the machine to completely extract all pillar coal before roof failure. Some thickness of pillar can be expected to crush before it is recovered.

Development of a satisfactory mechanical loader for longwalls is being studied intensively. The principal handicap the mechanical loader must overcome in Nova Scotia is the restricted space in which it must work, due to close timbering required because of great pressure on the weak roof. It is not likely that a satisfactory air powered machine will result because of mechanical problems of flexible piping to a moving machine, travelling 300 or more feet from the main pipe supply.



Electric power will be required and this involves Regulations respecting use of electricity in mines. Regulations Governing the Use of Electricity in Mines must be adhered to in the interests of safety, even though the extra cost involved may prohibit installations which would decrease an otherwise exorbitant cost of operation.

BY THE CHAIRMAN - I suppose you know there has been a Mr. Weir in this Province doing work, investigating work in connection with the mechanization of mines. The Dominion Coal Company brought him down here with a view to getting a report from him for the use of the Commission.

BY MR. FRAWLEY - To what extent do the Operators confer with your Department, either yourself or the Minister or Mr. Casey, on this very problem?

A. The law requires that they submit their plans to us before proceeding.

Q. But they have a problem and something must be adapted to their operation. Have they sat down with you and worried about that in conjunction with yourself, or your Department?

A. We have had no formal discussions on what would be the best machine, as yet sir. We have had types submitted to us as to whether they will be acceptable. In 1920 we had a problem presented to us, and we went with representatives of the working forces and the Company to examine the workings before we approved of their installation.

Q. And you agree it is a real problem to find a mechanical loader that will adapt itself to the operation of the longwall in the Sydney mines?

A. Plus the further electrification. It is the further electrification that is going to be the problem.

BY COMMISSIONER McLAURIN - And it won't work in a lot of these mines on account of roof and floor conditions?

BY MR. FRAWLEY - It has to work on some custom basis to suit the mines?

A. Yes, you cannot buy it off of a shelf.





Q. You have to have something built to your operation?

A. Yes.

Q. And to your knowledge the Dominion Company are considering it from that point of view?

A. I understand they are considering it, and Bras d'Or did the same thing before they installed the loaders there, which are working very satisfactorily.

Q. Are their workings on Longwall?

A. No, room and pillar.

CONTINUES BRIEF

Mechanical loading on the longwall face will also involve simultaneous shooting on the face if efficient operation of the machine is to be obtained. Multiple shooting is prohibited by Coal Mines Regulations in Canada today.

By that I mean if you have a whole wall 300 ft. long. Mr. Morrison can explain that to you.

BY THE CHAIRMAN - You say "multiple shooting is prohibited"?

A. All Coal Mining Regulations say a single shot is to be fired.

Q. And will it be necessary in order to make the mechanization complete, that more than a single shot has to be fired?

A. Yes, you have to cut the whole thing at once.

Q. Then your regulations will have to be changed?

A. Yes, and that will be discussed with all the Provinces across Canada.

BY COMMISSIONER McLAURIN - A machine cuts the whole wall?

A. Yes, and then it has to be shot down before the loader can come in, and you cannot shoot just one shot ahead all the time, I don't think.

CONTINUES BRIEF

Regulations Respecting Mining

In the Provincial Govt. Service the Department of Mines is charged with responsibilities respecting alienation of coal lands, conservation of coal resources and safety in mining.





Alienation and conservation are covered by the Mines Act. Regulations respecting safety of operations and maximum utilization of the resources are set forth in the Coal Mines Regulations Act and Regulations made thereunder. All the coal producing areas of the Province have been alienated. New development must be made by the leaseholder or through sublease to a third party.

BY MR. FRAWLEY - You have an open mind on the necessity of changing your Regulations?

A. Yes.

Q. Because as they are now you cannot proceed with it?

A. Absolutely.

BY MR. COHEN - The Doctor said conferring with other Provinces with respect to such a change in the Regulations?

A. Absolutely. We are conferring with the other Provinces of Canada to endeavor to obtain one Coal Mine Regulation Act which in its essentials would be satisfactory across the country.

BY MR. FRAWLEY - You say "All the coal producing areas of the Province have been alienated." You have the Halfway piece still?

A. Yes, but that is only a potential. It is not producing.

CONTINUES BRIEF

The Department is frequently under pressure to readjust leasehold or insist on sublease of areas not now being worked in order that new mines can be opened.

It is the opinion of the Department of Mines that the future of the coal industry in Nova Scotia depends upon orderly development. The fields are equipped and manned today for a theoretical capacity of 7.7 million tons (2,000 lbs.) and production over the past twenty years has stabilized at about 6 to 7 million tons. Conditions at and near the outcrop forbid anything other than large scale development. These are costly and the whole operation should be forecast and designed for maximum safety and maximum recovery. Each project should be built into the existing markets; not designed or planned to compete in that market. The new project should be a replacement



not a competition.

BY THE CHAIRMAN - Why?

A. Within the limits of a top production, Sir.

Q. You are looking for nine million ton production. How are you going to get it without giving an opportunity to other fields? For example in the Dominion Coal Company today they have only one virgin field, if you can call it virgin. How are you going to get your nine million tons?

A. I discuss that, or something like that later on Sir.

CONTINUES BRIEF

The large corporation has a definite program in hand. It was placed before the Duncan Commission in 1932 and accepted by that body. In general it proposes development at one point to compensate for exhaustion at another. The program has met the general approval of the Department. Details and sequence of development must of necessity be left to the corporation. The Department attempts to provide that no coal is left at any one operation that cannot be subsequently recovered through another opening, unless the economic limits have been reached.

The smaller independent operators present a somewhat different problem. A long term view of their operations is more difficult to forecast and frequently the individual mine closes because immediate costs of winning the coal are in excess of returns from coal sold. There is, of course, always an economic limit for anyone working or project depending upon the actual cash or credit condition of the operator and the reserves of coal available to him.

Upon occasion demand is made upon the Department to force a leaseholder (particularly the large corporation) to grant sublease to an independent operator so that he may abandon an expensive operation and transfer his efforts to a more profitable venture. If the project is acceptable to the leaseholder, the Department accepts the proposal, providing the sublessee submits satisfactory plans of development and shows adequate financial resources to give reasonable expectation of success.





This requires strict interpretation of leasehold and close scrutiny of proposals for development.

BY MR. FRAWLEY - Would you mind saying a word or two about that "If the project is acceptable to the leaseholder". I suppose you mean under the Law you must have the consent of the leaseholder?

A. Yes.

Q. Otherwise you would be interfering with the covenants in his lease and his Statutory rights?

A. Yes.

Q. So the Department is there to examine on the particulars of the proposal if it is acceptable in the first instance to the Lessee?

A. It is between the two parties.

Q. You have no powers to compel the head lessee?

A. The Department itself has no power.

Q. The Legislature?

A. Yes.

Q. Except as in Section 47 of the Mines Act?

A. Yes.

BY THE CHAIRMAN - Some of the present independent operators are producing coal from areas that individuals held and didn't work?

A. Yes.

Q. I am referring to the Cumberland. That was not a case where they went to the larger corporation for something?

A. No, the larger corporation, the Joggins area for example serves the Maritime Coal, Railway & Power.

Q. Have you ever had applications, or has it ever come to your notice, for the operation of coal areas that are held by individuals who are not operating them?

A. I would have to look up the record Sir, but I think I could point to one or two.

Q. Mabou for example?

A. Yes, that is one.



BY COMMISSIONER MORRISON - Has Section 47 ever been invoked?

A. Not in my time.

BY MR. FRAWLEY - Section 47 does not go very far.

BY COMMISSIONER MORRISON - I appreciate that, but I was wondering if it was ever invoked that far?

BY MR. CAMERON - Discussions have been held, without doubt.

BY MR. FRAWLEY - There is an old Statute in 1918 which I think has such a limitation in the opening section, but it is of no real importance.

BY MR. COHEN - What is the number of that?

A. Chapter 16 of 1918.

Q. Has that been incorporated in that?

A. No, it still remains quite separate, and the Mines Act is Chapter 4 of 1941.

Q. There is no consolidation?

A. No, there was no idea of consolidating it apparently.

Q. No, but of the Statutes?

BY HON. L. D. CURRIE - Yes. We will have it for you Mr. Cohen in a few minutes.

DR. CAMERON CONTINUES BRIEF

Assistance to Development

Full use of the coal reserves may require development beyond the immediate financial ability of the operators. In certain cases the Province has assisted in this regard by direct investigation and by advancing funds for development repayable from coal obtained by that development. This is financially possible by the Province on a limited scale only. It cannot be expanded for large undertakings, although certain larger operations are now in need of just such assistance.

BY MR. FRAWLEY - Do you have an annual vote in the Legislature for this?

A. No, it is discussed on its merits and asked for by Governor in Council. We do not carry a round figure for such things for the Province.

Q. You get a warrant from the Governor.



CONTINUES BRIEF

The Province believes that the national interest justifies that such assistance be forthcoming from the Dominion. It is suggested that Federal assistance should be available for development of new workings or modernization of old ones. It is realized that closing and abandonment of any one operation depends largely upon the economic conditions at the time. An operation may be closed, although complete overhaul of the existing workings and mechanical installations might allow of further extensions of the workings, or recovery of coal, the thickness or quality of which would not allow of economic recovery under existing conditions. Costs of the renovations must be balanced against coal subsequently obtained.

BY MR. FRAWLEY - I suppose the Inverness operation is covered by special Statute, is it?

A. I will refer that question to Mr. Curry.

BY MR. CURRIE - By Order-in-Council.

BY COMMISSIONER McLAURIN - You are advocating in addition to subventions and subsidies and special tariff, that there are certain cases where additional assistance should come from the Federal Government when a mine needs capital for development?

A. Yes. Each case being determined on its merits.

BY MR. FRAWLEY - That is the work you have been doing here and that you think should be taken over by the Federal?

A. Supplemented by the Federal, the larger operations. We can do it to a considerable extent. It is the question of the large development as the Minister announced the other day.

Q. At Thorburn?

A. Yes.

BY COMMISSIONER McLAURIN - This is a natural resource of the Province and if it is economic surely the Province by loan in some way should be able to provide that. The Dominion Government may help in many other ways, but if you make too many requests you might lose the whole pack of cards.

BY MR. FRAWLEY - Have you not a Provincial Developments Act as they have in other parts of the world?

12:00 O'CLOCK NOON, HEARING ADJOURNED UNTIL 2:00 P.M.





HALIFAX, Thursday, Feb. 1st, 1945 - 2:00 P.M.

HEARING RECONVENED AT THE COURT HOUSE

DR. CAMERON on the stand - Continues Brief of Dept. of Mines

Safety in Mines

Safety in mining involves safe practices for the recovery of coal, i.e. the overall safety of the mine itself, including ventilation and transportation, as well as the winning of the coal itself. It also includes training of personnel for individual and collective safety, i.e., vocational training of both worker and officials. These are provincially controlled under The Coal Mines Regulation Act.

The Regulations cover safety controls over mine gases and ventilation, explosives, coal dust, mechanical equipment, traveling ways and haulage, and roof control. Greatly increased use of electricity in mines and the inherent fire and explosion hazards require special Regulations.

In this regard it is desired to point out that, largely through the efforts of the Department of Mines of Nova Scotia, the whole question of Regulations Respecting the Use of Electricity in Mines is being considered by a Committee of the Canadian Standards Association in co-operation with joint committees in each of the coal mining Provinces to develop uniform regulations satisfactory to both the government inspection standards, industrial users and the manufacturers of the equipment.

BY COMMISSIONER MORRISON - At that point, what do you mean by joint committees?

A. Of the Canadian Standards Association and each of the Provinces. In this Province the Secretary, the representative of the Canadian Standards Association in the Province, plus the Electrical Inspector for Mines, the Chief Inspector and the electricians from the coal mines are a Committee appointed to revise, to consider the regulations that we have in the light of the regulations that have been submitted by the Canadian Standards Association, and those findings will all be submitted



to a joint conference that will include, I believe, the various other Government Services.

BY MR. LLOYD CRAIG - May I ask a question? Do I understand that you do not have a member of the Industries on that Special Committee?

A. Oh yes, the Industries are on the Provincial Committee, certainly.

Q. A member of the Industries is on the Committee?

A. Yes.

BY COMMISSIONER MORRISON - Selected by the Industries?

A. No, by the Minister.

BY MR. CRAIG - I am referring to the Standard?

A. That is an Industries Committee under the auspices of the National Research Council.

#### CONTINUES BRIEF

Control of certificates of competency for coal miners and for coal mining officials is vested in the Province. Prior to the advent of longwall mining and mechanization, the miner at the working face was of necessity a highly trained or skilled artisan. He had to know roof conditions, and timbering for support and protection; he had to know the problems of ventilation and control of gas.

BY COMMISSIONER MORRISON - Are you suggesting that he still has not?

A. May I continue?

Q. In view of what you are saying now. You say "he had to", does he not still have to?

A. I said that prior to the advent of longwall mining and mechanization he had to.

Q. But I say, he has still to do those things.

A. May I continue. My idea of the answer to that question follows:

#### CONTINUES BRIEF

He had to cut, shear, bore, shoot and load out the coal. Today, in longwall work particularly, these things - except





loading - are done for him by special crews. With the advent of mechanical loading, the miner will become a member of one or other of specialized crews required to keep the coal face advancing. The problem of training and certification for the new types of work at the coal face will increase the provincial responsibility. A trained expert machine operator for a mechanical loader may have nothing to do with the roof support to protect him while at work. He can have nothing to do with the ventilation of the working place. He will have to know the limitation of his machine and the hazards of its motive power.

Does that answer your question?

BY COMMISSIONER MORRISON - He will still have to have a lot of pit sense?

A. Certainly, Sir. He will get that underground.

CONTINUES BRIEF

Apprenticeship training under competent instructors will have to be developed for each of the many jobs from Hoist Operator to the coal face. Each mine, or at least each mining field, should have a definite section in which all new employees work under close supervision until they have thoroughly mastered the technique involved.

BY COMMISSIONER MORRISON - Without going back to back-hend technique, or the back-hand practice of former years, of course?

A. Oh yes.

CONTINUES BRIEF

The general principles of this type of preparatory training are already established in the Sydney area mines for emergency training of face workers. It will have to be enlarged to include training for all workers, if efficiency of operation is to be achieved.

The costs of these emergency training schools is now borne jointly by the Dominion and Provincial Governments and the industry. Pay for apprenticeship training is too high. The apprentice should receive increasing returns as his proficiency increases and receive it at such a rate that, when



he receives his certificate, he also attains to the standard pay for the work he performs.

BY COMMISSIONER MORRISON - What do you mean by "the pay is too high"?

A. Today they are being paid at a rate higher than the minimum rate within the mine.

Q. I have not met anyone in Nova Scotia yet who is paid too high.

A. The apprenticeship work they perform. The apprentice can only put his whole heart into his work if by every increase in his efficiency he gets an increased return for that efficiency. Today they start at a standard work wage and carry through to the end of their training period.

Q. That is psychological.

A. Yes.

BY THE CHAIRMAN - You want to keep, in other words, the practice of apprenticeships where they had been and which made England the greatest artisan country in the world? They didn't get any pay at all.

BY MR. FRAWLEY - An Articled Clerk in a law office does not get paid.

BY COMMISSIONER MORRISON - You are not comparing comparable things.

#### CONTINUES BRIEF

Cessation of the wartime emergency will remove Dominion Government responsibility for part costs. The Province cannot carry the added burden involved.

BY MR. FRAWLEY - The subsidies paid by the Emergency Coal Production Board - you mean when that is removed you people cannot assume that burden?

A. At present the Wartime Emergency Training Scheme is involved. One presumes whether that will continue in the post-war years. It remains to be seen. We hope it will be.

Q. You are not taking off production subsidies. It is the training?

A. Yes.



CONTINUES BRIEF

Coal Mines Regulation Acts of the several provinces in which coal is mined all carry clauses relative to the training and certification of personnel, both working force and official staff. Although there are many points in common, no uniformity of regulation exists whereby persons trained and experienced in one area can find employment in another. This problem was discussed at departmental conferences in Vancouver in November and plans have been laid for the development of uniform requirements of certification with common syllabi of instruction and common examination of candidates.

Q. Where are you going to give the Saskatchewan fellows training for submarine mining?

A. There will be particular conditions of individual fields that will have to be looked after by themselves. There is a fundamental knowledge that has been attained common to them all.

CONTINUES BRIEFV - COAL REVENUE AND EXPENDITURES

Provincial revenue as shown in the Public Accounts and the relationship of coal royalties thereto are indicated in the following table:-

<u>Year</u>	<u>Total Provincial Revenue</u>	<u>Coal Royalty Revenue</u>	<u>%</u>
1870	\$673,819.68	\$48,673.73	7.2
1880	576,544.35	49,065.61	8.5
1890	664,938.10	129,646.79	19.5
1900	937,261.37	299,754.60	31.9
1910	1,592,363.24	554,491.48	35.5
1920	3,801,016.06	608,364.51	16.0
1930	7,682,066.16	660,188.50	8.6
1940	13,591,066.66	809,101.85	5.7

Of the 10 year units the maximum is in 1910 with 35.5%, and in 1940 it has decreased to 5.7%.

BY COMMISSIONER MORRISON - As a matter of course it has not decreased, but other revenues have increased?

A. Yes, it has in percentage though.

Q. While we are on that point Dr. Cameron, that deals with coal royalty revenue?

A. That is right.





Q. Does not the Province of Nova Scotia extract further revenues from lease holders?

A. But they are a very very small proportion of the whole.

Q. Can you submit for the use of the Commission a table showing the amounts received per ton in the years 1940 to 1944 we will say, in royalties and any other rentals, and the amount of money expended by the Provincial Government directly on the coal industry in the same period?

A. The expenditures are coming presently. They are in the brief.

Q. Don't misunderstand me. Let us not get at cross-purposes. I want both, and I want them for the years 1940, 1941, 1942, and 1943, and for 1944 if available. Are 1944 available?

A. No sir.

Q. In those years the amount paid by lease-holders by way of royalty, amount per ton, and amount by way of ground rental, or any others that the Province derived by way of royalties or lease hold rentals. They charge so much per acre?

A. We charge a rental of \$30. a quarter mile. But it is cancelled as royalties are entered.

Q. And the amount of money expended by the Provincial Government on the coal industry, and how, for those years?

A. Yes.

BY COMMISSIONER McLAURIN - Would you not be interested in a pre-war year?

BY COMMISSIONER MORRISON - Now we will leave it to your judgment to go back to pre-war years. and a table of the same thing, so that we will see a picture from the pre-war and the war.

BY MR. COHEN - You might suggest that there be added the number of the personnel maintained by the Department in all of those years, and how they are distributed.

BY COMMISSIONER MORRISON - I think the expenditures will include the Department, the Inspection Department, and they may have other expenditures.

BY MR. COHEN - I was thinking not only in terms of cost, but



in terms of the number of individuals.

BY COMMISSIONER MORRISON - I think that is in the Brief.

BY MR. CAMERON - Not in numbers Sir, but I can give you that. I can give you the present day figures right now.

BY COMMISSIONER MORRISON - Not now, but in the statement, and handed in at your convenience.

CONTINUES BRIEF

First revenue from coal royalties is recorded in 1957, when sales of 294,198 gross tons of coal paid a total of \$26,728.68 royalty to the Province. From that year up to and including 1944, a total of 270,281,068 gross tons have paid royalties to the total of \$31,365,632.71 to the Province.

Those figures are dealt with in the appendix attached.

BY THE CHAIRMAN - Was the royalty paid on long tons?

A. Yes, 12½¢ on long tons of saleable coal.

BY MR. FRAWLEY - Was it always on the long ton?

BY MR. WALL - No, it was a lesser amount in early years.

In 1912 an Act was passed making it 12½¢ beginning Jan. 1, 1913.

CONTINUES BRIEF

Government inspection of coal mining began in 1864 and first inspection reports are to be found in the Annual Report on Mines of that year. Provincial expenditures on coal inspections since that date total \$4,123,399.25 with additional expenditures for assistance in the form of tax remittance, special commissions, compensation, and special investigations on particular mines or areas to a total of \$592,732.45; direct remission of royalties to a total of \$456,007.80; and refund of royalties in coal used for special purposes (manufacture of iron) to a total of \$353,847.10.

BY COMMISSIONER MORRISON - What do you mean by tax remittance?

A. Remittance of royalties at various times for various purposes to various corporations. They are all detailed in the statement. The tax remittance was not. Direct remittance of royalties to \$456,007.80, and refund of royalties in coal used for special purposes to a total of \$353,847.10.





BY THE CHAIRMAN - Explain that.

A. The year expenditures and what they were given for are given at the back of the report.

Q. You mention iron and steel. I want to get the picture without the figures. Is that money that the steel operators are paying through royalties, remitted back to them?

A. No, from 1901 to 1909 there was a refund of royalties if the coal was being used for the production of iron. At that time it was down in Londonderry if I remember correctly.

Q. I am asking if the manufacturers of steel today are getting a rebate, or if the Coal Company are getting a rebate?

A. No.

Q. It would look from your general statement as if they did?

A. You would think that was a continuing thing. It is the language that has been used then Sir that is wrong.

BY MR. FRAWLEY - Is this figure \$353,847 in Appendix No. 1?

A. Yes, you will find it in the addition of those figures in the top table there.

CONTINUES BRIEF

Direct assistance to coal mine development, other than Inverness, in attempts to resuscitate operations and thus the communities about them are summarized below:

<u>Mine</u>	<u>Community</u>	<u>Years</u>	<u>Amount</u>
Fenwick	Chignecto	1914-15-24-27	\$119,278.28
Minudio	Maccan	1924	28,534.64
Harborside	Sydney Mines	1933-34	3,482.32
Elite	Komptown	1933-34	15,387.52
Port Hood	Port Hood	1939-40	25,197.94
Seashore	Joggins	1940	9,000.00

None of these investigations resulted in permanent developments. They all received direct financial assistance in coal mining development, but the mines died in spite of the work put upon them.

Besides these certain advances or guarantees have been given for expenditures on development. Repayment of the loans was undertaken by the operators on basis of special



assessment on coal obtained from the development. Results of this method of government assistance are shown in the table below:

<u>Mine</u>	<u>Community</u>	<u>Year</u>	<u>Amount</u>	
			<u>Guaranteed</u>	<u>Repaid to Date</u>
Strathcona 2	River Hebert	1934	\$18,051.01	\$12,200.00
Victoria	River Hebert	1940	8,000.00	8,000.00

Might say that the same thing was done with gold mines. Two are here stated. The 1934 includes 1934, 1940 and 1944, to total \$18,051.01. There was a recent addition of \$4,000. by Order-in-Council to assist in further development at that point. Repaid on tonnage basis to date of \$12,000.00. Victoria has repaid the whole \$8,000.

#### CONTINUES BRIEF

The Province first took responsibility for Inverness operations in 1925 with an expenditure of \$13,479.07. From that date up to and including 1944 (and I am speaking of fiscal year in this case) it expended \$1,633,214.50 on operating costs and \$402,747.46 on Capital Account, or a total of \$2,035,961.96. BY THE CHAIRMAN - That Inverness mine was something turned back on the country first by the MacKenzie-Mann Interests.

A. As I remember it they withdrew their support to that mine about 1918, and it went through Liquidators and local operations of various kinds.

BY COMMISSIONER MORRISON - And you still had a mine left?

BY COMMISSIONER McLAURIN - Do you give anywhere else in your Brief the rest of these Inverness figures?

A. Page 102, Appendix 2, gives the statement up to date. These are net losses over and above any revenue from coal.

Q. So the gross net loss on Inverness is two million odd?

A. Excluding the salvage. Those are all losses on operations. The Government has just carried the loss on operations.

Q. Since 1935?

A. Yes, and it paid the deficits prior to that.

Q. And continuously since 1935 there has been a loss?

A. Continuously since 1925. There have been no successful





operations since 1925.

Q. I guess the stating of it is startling enough.

BY THE CHAIRMAN - What I wanted to get a little clearer. What size town was Inverness in 1925?

A. It was producing at that time something better than 1000 tons per day. It would have a payroll, on a guess, of somewhere around 700 men.

Q. And quite a little town surrounding it?

A. Yes.

Q. And the Nova Scotia Government didn't go into this, the Mines Department, for making profits. Why didn't they continue the thing?

A. I think the Government will have to answer that.

Q. As a matter of fact was it not to give employment instead of relief to the men there?

A. Oh yes, particularly throughout the period since 1934.

Q. I am asking this to emphasize something about what I was talking about this morning, the rehabilitation of Inverness without the Government spending an enormous amount of money on it, to have a rehabilitation scheme in Nova Scotia.

BY MR. FRAWLEY - You could not do the Inverness one often or you would break your back?

A. That is right.

Q. If you followed up all the abandoned collieries and did what you are doing in Inverness, you would soon become I would say, insolvent?

A. One cannot see how it could be done.

Q. If it is done to keep up communities, as you say to resuscitate operations?

A. Yes.

BY THE CHAIRMAN - I know the history of Inverness very well, but I think it only fair to the Government of this country to suggest why, and get it on the record here, why they ever carried on that operation. We have it now.

A. I would like to add, Sir, that that mining section, where





it is situated, is a source of livelihood to a lot more people than right in the town itself. All the community sell pit-props and lumber, and were depending on it for their cash. The railway itself was built to handle that coal, and if it didn't have to handle that coal no one known what might happen to the operation of the railway.

BY COMMISSIONER MORRISON - What is the estimated life of the property?

A. Today we are extracting one of the last few remnants of coal. We hope that there is 500,000 tons there. We have a few thousand still to come out of No. 3 mine. You would understand the difficulty sir when we have an underground haulage of pretty close to 8000 feet to handle about 250 tons plus a vertical haulage of about 3000 feet. We are bringing the last few tons of coal out of the farthest corner of that mine today.

Q. And when that is done?

A. That is No. 1. We are trying to build up another one on a little pocket that we hope has 500,000 tons, and we hope to develop it to the production of 200 tons a day, and as soon as the other one dies we will try to bring up No. 5, and when it is gone at 200 tons a day for three to five hundred thousand tons (it is hard to get a close estimate because the seam is turned up there very much) and when that is done there are one or two other little pockets that may have a few thousand tons, scattered, and absolutely new commitments as far as mining is concerned would have to be put into those.

Q. How many men employed?

A. About 250 this year. On the payroll we normally employ about 218.

BY MR. FRAWLEY - Get any taxes or anything to counterbalance?

A. Our losses have included payment of taxes to the community. We have attempted since 1934 to operate that mine on the same basis as any other mine in the Province; and we have charged the royalty and tax payments into the property, and have tried to run it as an operation on its own feet.



BY COMMISSIONER MORRISON - Private enterprise.

BY COMMISSIONER McLAURIN - And the Provincial Treasury, I suppose, hopes it goes out a little earlier than you anticipate?

A. The program of Inverness is an example I believe of what any coal district has to face in the future. The last few remnants are going to cost a lot of money to get them out.

CONTINUES BRIEF

Provincial expenditure on the coal industry may be summarized as follows:

Inspections	\$4,123,379.25
Royalty remissions	456,007.80
Royalty refunds (Iron)	353,847.10
Assistance & Investigations	592,732.45
Inverness operations	<u>2,035,961.96</u>
Total (to Nov. 30, 1944)	\$7,561,928.56

The foregoing review shows that the Province has expended a little over 24% of its revenue from coal upon problems relating to coal mining or the coal industry.

A chronological statement of revenue and expenditures (exclusive of Inverness mine) is given in Appendix I; expenditure on account of Inverness mine is summarized in Appendix II.

VI - MARKETS

The past and present markets for coal from Nova Scotia coal fields has been outlined in the table given on page 7. For convenience the information in that table is repeated below, and, added to it, is an estimate of the desired markets to allow of the production of an estimated 9,000,000 tons of coal annually:-





<u>Market</u>	<u>1936-39</u> <u>Tons</u>	<u>1943</u>	<u>1947</u>
Newfoundland	110,000	290,000	200,000
Maritime Provinces	1,250,000	2,100,000	1,750,000
Steel Industry	780,000	1,150,000	800,000
Railways	840,000	1,000,000	1,000,000
Quebec and Ontario	2,500,000	650,000	4,250,000
Bunker	290,000	145,000	300,000
Colliery Use (Includes employees coal)	500,000	525,000	500,000
Miscellaneous	<u>230,000</u>	<u>140,000</u>	<u>200,000</u>
	6,500,000	6,000,000	9,000,000

This forecast of possible and desired markets shows that the Newfoundland, Maritime Provinces, the Steel Industry and the Railways are expected to absorb some excess over the pre-war average figures. The principal new market, however, that will be necessary to realize this objective lies in the markets of Quebec and Ontario.

#### Newfoundland Market

The Newfoundland market, due to the war emergency, is nearly three times that of the average prewar demand for Nova Scotia coal. The strategical importance of Newfoundland from the continental point of view, plus the known increase in industrial development in that country, indicate that it should continue to need a substantial amount of coal in excess of prewar demand. This at least is true, that efforts can be made to supply Newfoundland with a greater amount of Nova Scotia coal.

BY THE CHAIRMAN - Not if they continue to trade with the Mother Country.

A. Well the effort can still be made Sir. Whether they succeed or not is another question.

#### CONTINUES BRIEF

#### Maritime Provinces

Industrial activity in the Provinces of Nova Scotia



and New Brunswick particularly has increased substantially with the war effort. On the other hand, the Minto coal fields of New Brunswick have increased production and it is to be expected that they will continue to increase so that the additional consumption of coal from Nova Scotia in New Brunswick industries must be discontinued. Increased local consumption from the Nova Scotia coal fields must form a necessary part of any development program. Every effort is being made today by the Department of Industry, Province of Nova Scotia, to increase the industrial activities within the Province. This effort can be expected to yield results, and loss of New Brunswick markets should be more than compensated for by increase in local consumption.

BY THE CHAIRMAN - Would that depend a good deal too doctor on the further development of water power?

A. To steam generated power, Sir. Utilization of coal for that purpose is one of the points.

Q. Has the Deputy Head of your Department made any investigation as to comparative cost, in the City say, of steam generated power and water power?

A. The Department as such, has not sit. The Nova Scotia Power Commission has a fairly complete story on those points and we took their figures.

Q. Are you at liberty to give them to us?

A. I can get them for you.

Q. The Nova Scotia Light & Power would have no objection to giving you the figures for us?

A. I don't think so, not at all.

Q. It was to me rather startling, if I have the right figures. I always thought electricity from water power could be developed for almost nothing as compared with coal.

A. Oh no Sir.

CONTINUES BRIEF

In this regard we must point out that industrial development in Nova Scotia is dependent, as elsewhere, very





largely upon an adequate supply of relatively cheap electric energy. Hydro-electric resources for this energy are limited and the power needs of the Province for additional industrial development must be met from coal. Power can be economically generated from coal but it can be done at low costs only when the cost of fuel is relatively low. It can use low grade materials. Power generation, therefore, forms a possible market for the use of material that is otherwise wasted. At the same time industrial and domestic users of coal desire and should have as high a grade material as is permitted by the nature of the coal itself and possible process of improvement that can be used on it.

### Steel Industry

Consumption of coal by the steel industry has shown a substantial increase due to the war effort. It is to be hoped that some of this increase will be maintained in postwar years. This will depend largely upon markets for the products of the steel industry. On the other hand, steel industry costs today are higher than desired. A not unimportant factor in these high costs undoubtedly is the high cost of raw coal to the steel industry. That industry will no doubt seek ways and means of reducing the total quantity of coal it consumes per ton of steel produced and fabricated. Its efforts, therefore, will be towards a reduction in coal consumption, not an expansion.

### Canadian National Railway.

(This is really the Canadian Railways).

This Railway, serving Nova Scotia, has been a constant consumer of Nova Scotia coal. It must be admitted that it has been handicapped in the use of this material by the quality of some of the coal product which has been supplied to it.

BY MR. COHEN - Before you go on with the railway, may I ask what is meant by "steel industry costs are higher than desired". I am not clear as to what is implied.

A. They are generally expensive operations to the steel industry in Nova Scotia today. The cost per ton of steel, I





understand, is higher than in competitive production. I have not the exact figures on it.

BY MR. FRAWLEY - You say the high cost of raw coal to the steel industry. Do they complain?

A. They have not to us, Sir.

BY COMMISSIONER McLAURIN - You say they are paying a high price for a poor product?

A. Yes.

BY THE CHAIRMAN - It says they are paying a high price for a poor product?

A. Relatively. They are paying more per B.T.U. than they perhaps should have to pay. I think that would be a fair statement.

BY MR. FRAWLEY - Mr. Brown told us he thought they were doing marvelously with a very unsuitable coal and a coal certainly that left a lot of things to be desired.

CONTINUES BRIEF

The railway has formed the major market for most of the mainland coal fields, and, particularly, the independent operations: and, as shown in table III, these fields are all handicapped by relatively high ash content in their product. Improvements in the quality or grade of product supplied the railway would undoubtedly be reflected in higher returns from the railway for it.

The Canadian Pacific Railway has used Nova Scotia coal products to a limited degree only. The Dominion and Atlantic Railway - the Nova Scotia subsidiary of the Canadian Pacific Railway - uses Nova Scotia product. The main traffic lines, however, do not enter the Province, and the Saint John-Montreal section has not been a big consumer. Attempts can be made to have the Canadian Pacific Railway use Nova Scotia coal to a greater degree than it has done in the past. Nova Scotia, however, must face the possible competition of the Minto coal fields in this regard. That competition can be met only if the quality of the coal made available to the Canadian Pacific



..  
Railway is consistently uniform and if the quantity contracted for is regularly available.

BY MR. FRAWLEY - You don't mean that the Canadian Pacific would use Minto coal on those main lines where they have not been using Nova Scotia coal?

A. One cannot foresee what they might do, but if there is a coal field there that can produce a good grade of coal, they will undoubtedly use it.

Q. At the moment they have not produced a good grade of coal?

A. Presumably.

BY COMMISSIONER MORRISON - Is it a competitive factor that enters into it?

A. What do you mean?

Q. Whether the Canadian Pacific would buy Minto instead of Nova Scotia, the B.T.U. value, does that enter into the picture?

A. I don't think there is any doubt that ways could be found to use Minto coal on the Canadian Pacific, and then the competitive factor comes in.

BY MR. COHEN - Where does your zoning come in?

A. We could propose the zoning, but Minto would have to be included in any zone.

BY COMMISSIONER MORRISON - I am looking at it from the Canadian point of view instead of Provincial. There is no love lost between the organization that I represent (not on the Commission) and the Canadian Pacific Railway. We do business with them. But everything else being equal, is not Minto entitled to a shake of the dice too?

A. Why not. It has to have a market for its production.

Q. But there is some criticism that the C.P.R. are not using more Nova Scotia coal. Now the C.P.R. as its name implies is a Canadian institution and naturally must play fair with the various provinces of Canada, and you are not seriously finding fault with them for buying Minto coal?

A. No sir.

Q. On the contrary?





A. On the contrary. The Minto coal has to have a market as well as the Nova Scotia coal.

Q. And that might be their natural zone?

A. It might be.

BY THE CHAIRMAN - There have been some complaints, I don't know whether they were registered publicly or not, that the Canadian National Railway for example tests all those coals, and that the people who supply the coal are unable to get tests, and that nobody gets them for them. The C.N.R. comes in and says this coal tests so and so and therefore we are not buying it. And some of the producers say that is unfair; that there should be some way for the Government or someone else to have tests of those coals. Perhaps you have?

A. It depends on what tests you mean. There are always available laboratories for the testing of coal. If you want to test firing properties, those can be arranged.

BY COMMISSIONER McLAURIN - The producer can make his own tests.

BY THE CHAIRMAN - Why could we not have something like that in the Province of Nova Scotia. It is all right to have it at Ottawa, but why could we not have something where the producer here could go.

BY MR. FRAWLEY - That is what the Alberta Research Council does.

BY MR. CAMERON - That means that every carload has to be sampled, and a sample could be given to the customer for his analysis, and one kept by the producer and a third sent to some Institution for analysis.

Q. What have you here?

A. The Nova Scotia Technical College and its laboratories which could be expanded should research require that they shall be expanded here.

BY THE CHAIRMAN - We are told you have nothing in Nova Scotia to assist in that regard.

A. The laboratories are available here.

BY MR. FRAWLEY - I think even with railway coal it does not help. The Railway must have running tests on the coal.



BY THE CHAIRMAN - I am not finding any fault with the railways.

BY COMMISSIONER MORRISON - Do you sell coal from your Inverness mines to the railway?

A. Yes sir.

BY MR. FRAWLEY - The paragraph in which you deal with the C. P. R. You say they don't use Nova Scotia coal on its main St. John-Montreal line.

A. I don't know what it is doing today. As a rule no great quantity has gone.

Q. Has it used any great quantity on that same line of Minto coal?

A. I know nothing about that, but I know Minto coal is available there for it to use.

Q. You don't know where the main supply of coal does come from that they use on the St. John-Montreal line?

A. No sir.

CONTINUES BRIEF

The table given above shows that shipments to Quebec and Ontario must form the bulk market for the estimated increased production of coal from Nova Scotia. Intensive sales campaigns in the past developed a substantial market in Quebec. Some of it will be lost to increased supplies of electric energy. That market must be recovered or replaced and additional, substantial markets found - both in Quebec and Ontario. Nova Scotia realizes that production costs in its fields must always remain considerably greater than the production costs of American fields that are competitive to those markets. It believes that the national interest as well as the provincial interest requires direct financial assistance to overcome this handicap. Railway subventions must be continued and possibly direct subsidies must be paid to the mining operations.

BY MR. FRAWLEY - Are direct production subsidies something comparable to what is going on now from the Emergency Coal Production Board?





A. I think something like that.

Q. When you say direct, you mean production subsidies?

A. I said possibly direct. Certainly the subventions have to be considered, and possibly we may need more than that.

BY THE CHAIRMAN - That depends on if the production of American coal stays where it is now, and the costs of our own coal as they are after the war, you would see the necessity for not sub-ventions but actual subsidies lessened after the war.

A. We cannot foresee what the conditions are going to be, Sir. Costs are the controlling factor.

Q. Suppose they remain the same. Coal production the same here, and the same (which I understand are a little higher than usual) down in the competitive markets of Pennsylvania and West Virginia. We are unable to compete with them now?

A. Yes.

Q. Without subventions?

A. Yes.

BY MR. FRAWLEY - But Dr. Cameron wants  $2\frac{1}{2}$  millions more coal in there, or  $1\text{-}3/4$  millions.

BY MR. COHEN - Do I understand, having regard to the remark made by Dr. Cameron about not being able to foresee the future, that the words can be withdrawn, and that that is a mere conjecture based on circumstances that may alter?

A. What statement?

Q. That Nova Scotia realizes that production costs in its fields must always remain considerably greater than the production costs of American fields that are competitive to those markets?

A. I said subventions must be continued and possibly direct subsidies must be paid to the mining operations.

Q. Just above that - "Nova Scotia realizes that production costs in its fields must always remain considerably greater than the production costs of American fields that are





competitive to those markets."

A. I think I am right there sir.

BY COMMISSIONER McLAURIN

Q. You are not withdrawing that statement?

A. No.

BY MR. COHEN - I wonder if the Doctor can give us any information about a suggestion that I have seen in some reports that there may be some possibility of exhaustion of the American field in terms of some rather important grades of coal. Has the Doctor any information on that?

A. There are possibilities of reduction or limitation of the anthracite production, but I doubt if there is a limitation as close as our limitation is as far as the bituminous production is concerned. In other words they have greater available resources of bituminous coal than we have in the competitive fields.

BY COMMISSIONER McLAURIN - Insatiable supply in the United States of bituminous coal?

A. Yes.

BY MR. FRAWLEY - And stripping operations?

A. Those are always limited.

(Page 833 follows)



Lesser Markets

The other markets outlined in the table are not subject to great increases, although it is true that improved quality of product - both from ash content and in screen size - might open up new markets on the basis of merit. It is, for example, possible that consistently uniform grades of high quality coal or coal products from Nova Scotia could be sold in foreign countries that do not have their own coal supplies, in competition with coal-producing countries such as England, Belgium or Germany. Quality and first cost, i.e., production cost, would be the important factors in this marketing problem.

The above discussion outlines the future market needs for Nova Scotia coal and the possible ways by which they can be obtained. The discussions would not be complete without consideration of the distribution of these markets to the various coal fields of the Province.

Cape Breton County Coal Fields

The greatest and by far the most important needed market is that of Quebec and Ontario. These of necessity must be served to as great an extent as possible by water borne transportation of coal. Also they must be supplied with as uniformly a good quality as is possible. The handling of coal from mine or railway car to ship, from ship to shore, and from shore delivery point to the consumer invariably results in what has been termed a "size degradation" of coal. It is reasonable to say that shipments to the St. Lawrence river ports should be bulk shipments of coarse, raw coal only. Any markets for coal products tributary to the St. Lawrence river can best be served by processing the raw coals at or near the delivery point or the market point rather than processing at the coal field and shipment of the product to these markets. Raw coal, therefore, with some of the fines removed prior to shipment, should form the great bulk of the material supplied through the St. Lawrence river navigation route.





Water shipment of coarse, raw coal requires that the coal come from a field or fields close to the sea coast. It is necessary, also, that the coal so shipped shall be of uniformly good quality. These two factors limit the coal production for Quebec and Ontario very largely to the Cape Breton county coal fields. These have the additional advantage of an immediate market - coke plants - for most of the screenings. Experience in the past has shown that over 90% of the coal so shipped has come from those fields. This figure will probably remain in the postwar period. The only other area from which regularly uniform quality of unprocessed coals (other than screenings) can be produced is the Springhill field, Cumberland County. Some portion of the market might be supplied from that field.

On the other hand, water transportation via the St. Lawrence river is limited to perhaps seven months a year. It follows that, if the Cape Breton fields are to be assured of uniform market throughout the twelve-month period, some market must be available for winter production. Length of rail haul is a distinct handicap and is aggravated by the Strait of Canso and the general conditions of the main line of the railway from Sydney to Truro. There is thus undoubted justification for consideration of substantial improvements on this transportation system. Banking of the winter's production has been depended upon in the past but the storage and rehandling of the bank coal invariably results in a size degradation, and, consequently, a decrease in the value of the product. It has the further disadvantage of tying up large sums of money as expenditures on production which cannot be recovered until the coal is shipped and sold. Saving of these losses should represent an appreciable part of the additional costs of rail transportation for winter production.

Generally it can be said that production for Quebec and Ontario shipments should be restricted largely to the Cape Breton county fields with perhaps a limited production from Springhill.



BY THE CHAIRMAN: I am glad you put that Springhill in there. They say they work only half the year around because their markets are not extensive enough. However, I understand that something may be done to give them the opportunity of full-time work if we can sufficiently impress it in certain places.

DR. CAMERON continues:

Cumberland County Coal Fields

The second most important coal-producing county of the Province is Cumberland county with the Springhill field producing nearly three-fourths of the total production and the Joggins-River Hebert area one-fourth.

BY THE CHAIRMAN: Before leaving that "limited production from Springhill" there used to be at Pictou Landing a shipping pier from which I understand there was shipped large quantities of coal into Montreal markets. I don't know why it was ever discontinued, I am sure.

DR. CAMERON: I don't know either, sir, but the content of 13.7% ash against 8% may have something to do with it.

MR. H. M. C. GORDON: It has not been discontinued, sir.

BY THE CHAIRMAN: He says only Cape Breton and Springhill coal.

MR. GORDON: Well, Pictou County would not like to hear him say that.

DR. CAMERON continues: Table No. III shows the Springhill coal has excellent qualities in ash content and thermal value. It has stable markets, the backlog of which is the Canadian National Railway. Production capacity of the field is today slightly over 800,000 tons (Table V). Problems of mining are such that a great increase cannot be expected. Additional markets for 200,000 tons per annum would stabilize the Springhill operations at an economic level without undue inroads upon the relatively limited resources of available coal (Table II). This market should be obtainable by shipment to the St. Lawrence river ports through Pugwash.





Springhill coal is an excellent railway fuel and this field would seem to be the logical source of production for possible additional markets on the Canadian Pacific Railway Saint John-Montreal line.

BY COMMISSIONER MORRISON: What are we going to do with Minto?

DR. CAMERON: It is a logical source of production. It is a question of competition there.

BY COMMISSIONER MORRISON: Survival of the fittest?

DR. CAMERON: Not completely. There could be a possible adjustment there.

BY THE CHAIRMAN: In regard to Pugwash, there are no facilities there?

DR. CAMERON: There have been no coal-loading facilities there. It is a loading point of some importance.

MR. GORDON: A loading point for timber. They have never shipped coal.

BY THE CHAIRMAN: There will have to be adequate shipping facilities at Pugwash before the betterment of Springhill will take place?

DR. CAMERON: That's right, sir. There is, of course, as Mr. Currie points out, an ample market for Minto coal and Nova Scotia coal on the C.P.R. if they stopped using American coal.

BY COMMISSIONER MORRISON: After all it is not very many miles of railway. We are talking about the C.P.R. burning coal from Montreal to Saint John. I will grant you they should put on some more trains.

DR. CAMERON continues: Water shipment can be made through a loading pier at Parrsboro.

If the Canadian Pacific Railway can be induced to increase its consumption of Nova Scotia coal, the product of the Springhill field can well be allotted this market.





The Joggins Field

The general Joggins coal area extending from Joggins mines on the Bay of Fundy east of Chignecto is today a depressed area. Table II shows that the available coal is very limited. Table III shows that the quality of that coal is relatively poor. Although the immediately available reserves of coal are limited, there is considerable geological evidence that there are potential reserves of considerable magnitude, the quality of which, however, is probably no better than that which has been mined elsewhere in this field.

This whole field needs resuscitation. The coals from it must be improved in quality by proper preparation and maximum use made of the waste products of that preparation. Suggestions for a way by which this can be done will be given later in this brief.

Markets for this coal in the past have been largely the Canadian National Railway, plus the local domestic and limited industrial markets of northern Cumberland county (Amherst, Oxford, etc.) and adjacent portions of New Brunswick. A substantial portion of the coal production is annually used for the generation of power at Maccan. The Department of Industry has proposals under way for improved industrial conditions in the Amherst-Oxford area. These include revival of the steel industries at Amherst and the development of chemical industries based upon the salt at Nappan. Both these projects will necessitate a considerable supply of electric energy. This should be available from otherwise waste products in the preparation of the Joggins field coals.

BY MR. FRAWLEY: When you speak of the steel industry at Amherst you mean the Canada Car?

DR. CAMERON: Canada Car, Dominion Bridge Company, etc. There used to be a steel industry there.

Q Fabricating, not basic steel?

A Yes sir.



DR. CAMERON continues: The fuel and power markets of Cumberland county can well be allotted to the Joggins field. The needs of this industrial development should increase the normal or prewar Nova Scotia consumption of coal by 100,000 tons or more, and the productive capacity of the Joggins field now of the order of 300,000 tons annually might be expanded to perhaps 400,000 tons. Market for the coarse, clean coal from this field will have to remain as in the past, the Canadian National Railway and the local industries. Improved quality of this material resulting from preparation will enhance its value for railway purposes. Washing wastes will be available for power generation.

The above outline indicates that the productive capacity of the Cumberland county fields can be increased by perhaps 300,000 tons per annum. This will stabilize the Springhill community problem and will very greatly resuscitate the depressed Joggins-Chignecto area.

#### Pictou County Coal Fields

Pictou county coal fields comprise three producing areas: Stellarton, Westville and Thorburn. The great bulk of the production today comes from the Stellarton area; within the past substantial quantities of coal were obtained from the other two.

BY THE CHAIRMAN: You are not suggesting that substantial quantities of coal are not still mined in Westville?

A No, were obtained from the other two.

Q "In the past". Aren't substantial quantities of coal obtained from Westville today?

A Well, the total production figures I think give about 800,000 tons against 200,000; about one-quarter comes from Westville.

Q What I am talking about is this, that your statement there would indicate that in the past substantial quantities of coal came from Westville and today we are not getting substantial quantities of coal.





A Well, comparing the two I think that is correct. The production at Westville has been stable for quite a time.

Q You don't start off this thing with a comparison.

A Apparently a lack of completeness in my phraseology.

DR. CAMERON continues: Table No. III shows that these coals are all characterized by relatively high ash content. As reported earlier, the geological origin of most of the presently mined coal from these fields differed considerably from the other areas in the Province, and this mode of origin has resulted in an intimate mixing of mineral matter with the carbonaceous material. Improvement in the quality of these coals by ordinary picking or simple washing methods may not be very effective. The production of these fields, therefore, must find a market which is willing to take relatively high ash coal or more complete and intricate methods of separation of the carbonaceous matter from the mineral matter must be found.

Present markets for the Pictou coals are the Canadian National Railway and local or Maritime customers. The coals, in spite of the ash content, find favor in certain industrial plants and in domestic use.

Production capacity of the field today is estimated at 750,000 tons per annum. The producing mines, however, are old and most of the operations have reached the limit of the area which they are working and production is definitely dwindling. The production problem in Pictou county is one of stabilizing the output to somewhere near the present figure. Table No. II shows that there are immediate reserves of coal available and one of these should be opened in the near future.

Suggestions for the preparation of the products of this field to enhance the value of the product and to stabilize its markets will be discussed later.

BY MR. FRAWLEY: You say about the Pictou coals that while they have high ash content they do find favor in certain industrial plants?

A That's right.



Q What are those industrial plants?

A Well, certain local plants. Any coal mine has its own stable markets. People have got to like their quality of coal, they learn to use it and can get better results out of it than they can out of any other.

Q They have adapted their equipment to the ash content?

A Their equipment and their personnel. I should think, sir, in a large number of cases it is the ability of their personnel to fire their coal that is important.

BY COMMISSIONER MORRISON: A little salesmanship.

A Well, it is salesmanship to begin with, but it is other things beyond that.

BY MR. FRAWLEY: It is suggested that we should explore that, and get some of the details. That is not available in your office, I suppose?

A No sir.

DR. CAMERON continues with brief:

Inverness County

Four disconnected coal fields occur along the west coast of Cape Breton island in Inverness county. From south to north these are: Port Hood, Mabou, Inverness and Saint-Rose-Chimney Corner. Table III shows that the quality of this coal is appreciably different from those of the other fields. They comes closer in rank to sub-bituminous rather than bituminous coal, and are characterized by the fact that they are non-coking, have medium to high ash content (in excess of 15%) and medium thermal value (11,000 to 12,500 B.t.u.) An inherent handicap is the fact that they are not amenable to storage due to a tendency to spontaneous combustion.

BY THE CHAIRMAN: You should have added there that they are the best stove and grate fuel that we have produced in the Province of Nova Scotia.

BY COMMISSIONER McLAURIN: That is what non-coking coals generally are.





BY THE CHAIRMAN: I think you should add that to your brief, if I am right.

A They certainly have an excellent record.

Q Not only that, but they are the best in this Province for that purpose. We have millions of tons of coal along those shores. I am really finding fault with you on that.

MR. A. MATTHEWS: I might add to that that the fact that Inverness is preferred is because it has so much volatile. It also kindles much quicker.

DR. CAMERON: Unfortunately I have something to do with the marketing of Inverness coal and know the difficulties I have in selling it.

BY THE CHAIRMAN: Why don't you give its good qualities instead of its bad?

A Perhaps I tried to be honest.

Q Do you agree with me about its qualities for stoves and grates?

A I haven't tried it for that, sir. I must say for the last 25 years, I suppose, since the Government took over, we have been extracting portions of the coal seam at Inverness which were deliberately left by the old operators because it was not considered fit to mine. The quality of the coal is the important point.

Q Well, I am saying I don't think it is fair to Inverness coal to give its bad qualities and then not say something about its good qualities.

A I admit that we could very well have added that it has an excellent reputation as a domestic fuel.

Q And that is about all it is being used for, except a little for the railways down there.

BY MR. FRAWLEY: You wouldn't think that the tendency to spontaneous combustion is perhaps taken a little from the natives up there, would you?

DR. CAMERON continues brief: The three southern fields, all submarine, have been worked extensively in the past. The operating mines on two of them - Port Hood and Mabou - were lost





through accidental flooding, presumably by sea water, and the presence of these old, abandoned and water-filled workings is a definite handicap for their further development. The deposits at Inverness town are almost completely worked out and only a few disconnected areas, each of a few hundred thousand tons, are available for further extraction.

The Saint Rose-Chimney Corner area consists of two small fields; the one at Saint Rose, completely determined within the land areas; the other, with undetermined extent under the sea. The Saint Rose-Chimney Corner field is further handicapped by the fact that it is situated some twelve to fifteen miles distance from the nearest railhead and will require extension of the railway before systematic development can be undertaken.

BY MR. FRAWLEY: Anything very promising there?

DR. CAMERON: There is a potential field, potential operation. (Continues with brief): The two southern fields - Port Hood and Mabou - were restudied geologically during the past year. Results of this work indicate that there still remains substantial tonnages of coal in the Port Hood field. There may be substantial tonnages at Mabou but the geological conditions of very steep to nearly vertical dip and intense folding and faulting will undoubtedly interfere with economic mining, particularly in view of the submarine character of this coal field.

BY THE CHAIRMAN: You are not suggesting that those handicaps there cannot be overcome?

DR. CAMERON: We don't know enough about the conditions at Mabou yet to say. (Continues with brief): The Inverness county coals have always had a good market as a domestic fuel. If the coals are carefully sized and well cleaned, this market could be expanded within the Maritimes, particularly Nova Scotia and Prince Edward Island. Screenings and waste from cleaning operations can be used for power generation. Unfortunately the domestic market is a seasonable one and successful operation in these fields is handicapped by the fact that the coals



cannot be stored. Some investigations have been made to attempt to overcome this handicap; although the results have not been entirely satisfactory, there is reason to believe that a way can be found over the difficulty.

Mining operations in these fields over the past number of years has been limited to the Provincial Government-controlled operations at Inverness and a few prospect operations elsewhere. Production at Inverness county has averaged about 100,000 tons per year. A complete new mining operation at some one of the areas is necessary to resuscitate this field. A new operation of about 200,000 tons per year capacity, producing well cleaned, carefully sized coal for the domestic market appears to be the most suitable development for the near future.

BY COMMISSIONER MORRISON: The coal reserves, are they still held by the Province?

A Yes sir, except Mabou. Port Hood is held by the Province, Inverness except a few isolated leases, and one or two leases in Saint Rose. The areas are all available if ---

Q In other words, Dosco doesn't control that area?

A No sir.

BY THE CHAIRMAN: You spoke about the difficulty of reopening the Port Hood and Mabou mines. Is that not the fault of the people who operated those mines years ago and operated them without having regard to proper coal mining operations in submarine areas?

A At the time both those fields were lost, as I remember, the knowledge of what could be done in submarine conditions was very limited. Particularly was that true at Mabou. What they thought at that time was safe practice may not have been safe practice, but it was no fault of theirs. There had to be an experiment.

Q But the result of their operations is that it is most difficult to open up those old mines - Mabou, Port Hood and some other coal mines around?





A Yes sir. The older operations make it more difficult to get at the coal beyond.

BY MR. MATTHEWS: Is it not a fact that due to electric current, that is energy, most of the developments there are handicapped because they must depend on the production of coal for steam purposes?

A Any coal mine in the past has used some from its own waste coal to generate its own power. Where it was going to use electric power it generated its own. Now there is a new steam generating power plant being installed at Inverness today. There has been a limited supply of electric energy available over the past few years at Inverness, but a very limited supply only. There has been no surplus for other developments.

BY THE CHAIRMAN: You are doing a pretty good job down there, giving the countryside some electricity. That is one of the things that the people of that part of the country are very thankful for, and with better prospects in view when you get your new operation going.

A A new steam generating plant is under construction at Inverness now to produce power and we are going to use it at Inverness mine. That has not retarded the development of mines in the field. (Continues with brief):

#### Other Fields

A number of isolated coal occurrences of small, individual extent are known in Colchester county along the south slopes of the Cobequid hills. Only one area, that at Kemptown, has been developed to any extent. The seams are generally thin and of high ash content. From what is known of them however, the carbonaceous matter is of good quality, the Kemptown coal ranking as a high-grade, non-coking bituminous coal.

BY THE CHAIRMAN: Is it still being operated?

DR. CAMERON: It did until a few months ago. It had sporadic operation this summer. (Continues with brief): In the past it has been classed as a semi-anthracite but modern



classification places it as a low volatile bituminous coal. This coal appears to be amenable to washing or cleaning to produce a high grade product. Recent investigations on the quality of the coke made from Cape Breton county coals for the steel plant show that the coke can be substantially improved by the addition of low volatile, high grade coal. Kemptown coal would appear to be a possible local source for this type of material.

BY MR. FRAWLEY: That is exactly what we heard in Sydney. Hasn't that been followed up at all? Why doesn't that Kemptown coal go to Sydney?

DR. CAMERON: There is the question of the time element there. There is a lot of systematic investigation necessary before that point can be proved.

Q Is it a Crown lease?

A No sir.

DR. CAMERON continues: Before systematic development can be undertaken on this field, extensive investigation is necessary on the sub-surface geology of the area to determine the coal reserves and the geological factors that may handicap development. Preliminary investigations with reference to the cleaning of these coals were undertaken recently but further work is required.

The Kemptown field today has potentialities for production of a limited tonnage of high quality, low volatile, non-coking coal for blending with the coking coals used in the steel industry. The whole development problem requires intensive and expensive investigation. A market for perhaps 100,000 tons per annum should be available.

BY THE CHAIRMAN: I suppose you don't know what the deposits are?

A We know very little about them, sir. We discuss them further later on.

BY MR. FRAWLEY: Is it under lease?





A It is under lease to the Elite Anthracite Company.

DR. CAMERON continues:

Other Occurrences

Coal occurrences are known in Richmond county and a limited amount of work was done on them many years ago. The records are obscure, plans of the operations are nonexistent, and the general geology of the coal-bearing horizons requires further work. Dr. W. A. Bell, Geological Survey of Canada, has been allotted this area for detailed study as part of the Geological Survey programme for Nova Scotia for 1945. Until investigations are completed in that area, the coal resources of it must remain as an obscure, potential reserve.

BY THE CHAIRMAN: Which means that the coal reserves of this Province are not very definitely established, at any rate?

A For certain areas, sir.

Q I am taking the Province? The coal underground in this Province is not very definitely known?

A A detailed knowledge necessary to develop an industry on any one property ---

Q That is not an answer to the question at all. The answer is found right in your brief here: "Until investigations are completed in that area, the coal resources of it must remain as an obscure, potential reserve."

A That is true, sir.

Q I am saying in the Province of Nova Scotia then the geologists have not a well defined calculation of what our coal reserves are?

A This is a very small area.

Q I am not talking about how small it is. I am talking about the Province?

A I think we can say the coal reserves in this Province are better known than elsewhere.

Q But they are not definitely known?

A Nothing is definitely known.





Q We were told 60 years ago that old geologists came here and made surveys and knew where every pound of coal was in this Province, and what I am saying is that we do not know that yet. A very good thing happened in England, where they knew exactly and definitely their coal reserves for 100 years. It took a German bomb to unearth one of the finest coal fields that they have in Wales today, anthracite coal.

A Oh, such things are possible.

Q The only reason I am asking you is that is one of the aspects we have got to investigate, how thoroughly do we know anything?

A We can never know definitely. We can say how much there is ahead for 25 or 50 years and what the possibilities are for 150 years. A definite answer is impossible.

DR. CAMERON continues with brief:

#### VII - PREPARATION OF COAL FOR MARKETS

Uses for coal fall into two general classes:-

(a) As a source of heat for domestic consumers and for industrial use, either as heat or in the generation of power.

Raw coal or products derived from the coal may be used for these purposes.

(b) As a raw material for chemical industries. Some portion of the coal, or products from it are used for the generation of heat as an essential need of the chemical processes involved in the industry.

Of necessity the classes overlap, processes preparing coal for chemical or industrial use produce coke (or char), gas, oils, and tars, some of which are required for the industry, others have to be marketed to assist in defraying the costs of the operations.

Nova Scotia coal and products derived from it find their way to many of these markets, either in raw form or processed or partially processed. Increased demand in each market depends entirely upon the quality of the coal or product sent to it and the cost or sales price at the marketing point.



Local markets absorb only a small portion of the total output today. Transportation to the distant markets involves additional costs. These can be compensated for in part by increased quality. Preparation of the coal is an essential need.

#### Preparation of Coal as Fuel

Full economy in the utilization of coal requires first that the coal shall be brought to the surface as clean as possible and, second, that all possible use should be made of the carbonaceous matter contained in it.

#### Mining

The first requirement means careful mining with minimum breakage of roof and pavement rock into the coal underground. Dirt inherent in the coal seam, such as splint or stone, may or may not be sorted below, depending on its character and quality, upon the surface equipment available for its preparation and treatment and upon the markets available for the treated products.

#### Particle Size

Particle size of the coal depends upon many factors, some inherent in the coal seam, and thus uncontrollable; others dependent upon the mining methods and the handling of the coal from the mine to the consumer bin or stock pile. Furnace design and methods of firing control the particle size required by the consumer. If there is need of a coarser product than a mine can produce, the particles may be briquetted together; if they need finer sizes, coal must be crushed or ground to size. Furnace design and firing methods control the particle size required and the producer of coal must meet those requirements. They can always be met but the cost of preparation must be recovered in the selling price of the coal.

#### Sizing

Sizing of the mine product is a necessary step in the marketing problem. It is also a necessary step in the production of clean coal. An essential need is uniformity of standards of size. Specifications for these have been developed





and should be more widely used<sup>1</sup>. Because of the problems of rehandling between producer and consumer, and because coal is always relatively friable and breaks down in handling, sizing frequently has to be done at the dealer's stock pile as well as at the mine or cleaning plant.

#### Cleaning and Washing

Any coal as mined contains removable impurities and as much as possible should be removed both to cut down freight costs on worthless material and to supply the consumer with clean coal. All mines have picking belts where the visible dirty lumps in the larger sizes are removed by hand. Washing must be used on the small material. Washing may be either dry or wet. Dry cleaning (washing) requires dry coal and, if coal as mined is moist, it must be dried before washing. Wet washers require that the clean product (and, perhaps, the refuse) be dried before shipment. Obviously these operations add costs to the coal. The benefits derived by the consumer from the use of clean, evenly sized coal of uniform quality will more than balance the added costs.

Handpicking of roof and pavement rock and bone coal or slate is standard practice at most collieries. Costs are from 10c to 15c per ton of coal handled<sup>2</sup>. The pickings may have fuel value for local use in power generator or may be waste.

Modern preparation plants with facilities for sizing and washing of large tonnages involve capital expenditures of from 50c to \$1.00 per ton per year capacity. Operating costs, including amortization of the plant, average something less than 15 c per ton.

Handpicking is common practice at most collieries in Nova Scotia but further preparation of the coal is limited to screening for the removal of fines, producing two classes of coal - screened coal and slack. Special sizes are prepared at

<sup>1</sup>Can. Govt. Purchasing Standards Committee, Specifications for Coal, No. 18, G.P.1, 1940.

<sup>2</sup>Vide Peele, Mining Engineers Handbook, 3rd Edition, p.3503.



a few collieries and at some dealers' stock piles.

Washing is practised for preparation of coal for coking at Sydney coke ovens, and a Vissac washer is used on part of the production at Springhill. Undoubtedly better marketable products could be made in practically all the coal fields by installation of more modern preparation plants.

### Briquetting

Mining operations and any bulk handling of coal result in production of fines. If a coal is inherently dirty, it must be broken or crushed to free the dirty particles from the clean coal before washing. The fines so produced, particularly if cleaned, can be made into suitable fuel by briquetting, if no other market is available.

BY THE CHAIRMAN: They don't do much of that in the province here?

DR. CAMERON: No sir, no briquetting in the province that I know of. (Continues with brief): Any coal or solid coal product (coke or char) may be briquetted. If the coal is a non-coking coal, and it is not to be used as powdered fuel, the fines must be briquetted if maximum use is to be made of the product. Slack or fine coal generally sells for appreciably less than screened coal. Any clean, fine coal, which cannot be readily sold, is usually worth the cost of briquetting. Briquetting requires a binder but blending of coking and non-coking coals may give a mixture very suitable for briquetting with a minimum of binder. The binder normally used in asphalt, a petroleum derivative or coal tar pitch produced in the carbonization on coking of coal. Coal briquettes can be made strong, clean to handle, weatherproof and with good firing properties.

The costs of briquetting must be compensated by the increased sales value of the briquettes. Briquetting costs in North America are estimated<sup>1</sup> at \$2.58 per ton, exclusive

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<sup>1</sup>Strong, Swartzman and Burroughs, "Investigation of Fuels and Fuel Testing," Mines Branch, Dept. of Mines and Resources, Report No. 775. 1937.





of cost of coal. This cost includes \$1.13 per ton briquetted for binder, which might be materially reduced if the briquetting plant were associated with a carbonization plant producing coal tar pitch. No coal is briquetted in Nova Scotia.

### Carbonization

Carbonization, or the decomposition of coal by heat and, in the absence of air, converts the coal into several products, essentially a solid residue (coke or char), dense organic liquid compound (tar), a light organic liquid (oils), a watery liquid (ammonia liquor) and a gas. Each product has special value for special purposes. Coke and char are relatively smokeless fuels of high thermal value, tar and light oils may be used as liquid fuels or as a raw material for many substances and products as dyes, chemicals, resins, explosives, plastics, etc. Ammonia extracted from the watery liquid has many uses in industry. The gas is a clean fuel or may be converted to other chemicals for other purposes.

From any kind of coal, the relative amounts and the chemical and physical characteristics of the products can be varied by changes in the condition of carbonization. Two general types have been developed known as high temperature carbonization and low temperature carbonization. It is important, however, to note that the total weight of products obtained cannot be more than that of the raw materials used, coal, water and sometimes air. Also, it must be noted that the total potential heat values of the products must be less than the potential heat value of the coal. The processes involve chemical change and therefore the consumption of energy. There are losses in the operations. The intrinsic value of the products depends upon the work put upon them and the costs of that work, plus the costs of the raw coal, plus the losses have to be realized from the sales return for the products.

Markets for all the products must be available if the carbonization operation is to be economical. Coke may be a better or even a necessary fuel for certain operations as in





the iron blast furnace. To make the coke involves production of tar, oil and gas as well and markets or uses must be found for these as well as the coke if maximum economy in the use of the coal is to be obtained. Tar and tar derivatives may be necessary for manufacture of special products such as nylon or synthetic rubber. The amount of tar available per ton of coal (10 gallons per ton by high temperature, or 20 gallons by low temperature) will not of itself be sufficient to defray the costs of mining the ton of coal from which the tar derivatives required for the industry are to be obtained. If, however, the coke (or char) obtained by the carbonization can be sold to defray most of the costs of mining and carbonization, and if the light oils, ammonia and gas can also be sold, the tar product will have to bear only a fraction of the total costs of the operations and may be economically available for the purposes desired.

Markets are necessary for the bulk products of these operations. Then the lesser or minor products can be used profitably.

In Nova Scotia high temperature carbonization for production of coke for the steel plant at Sydney has been a normal operation for many years. Recovery and use of secondary products is indicated in Table No. VI. Light oils are completely utilized as are also the ammonia and the gas. Tars are partially processed for the local markets and portions are shipped for further refining elsewhere.

BY MR. FRAWLEY: There is no low temperature carbonization in Canada, is there?

DR. CAMERON: I am not sure what is going on in the rest of Canada. I don't think there is anything anywhere else.

BY THE CHAIRMAN: The only things they get out of the coal at the steel plant in Sydney are the coke, the tar, the benzol, and they get markets for all that? They only extract that from the coal they use for coking?

DR. CAMERON: Yes. That is given in Table VI. (Con-









tinuous brief): Distribution of secondary products from the coke plant at Sydney is not completely determinable. Freight rates for some of them have been established between Sydney and points as shown below and can be taken as indicating the widespread dispersal of products.

<u>Product</u>	<u>Destination</u>	<u>Rate</u>
Creosote oil	Montreal, Quebec	35 c per 100 lbs.
	Hamilton, Ontario	38
	Sudbury	50
	Sault Ste. Marie	54
	Detroit, Michigan	50
	Milwaukee, Wisconsin	55
	Evansville, Indiana	61
	Louisville, Kentucky	62
	St. Louis, Missouri	64
	Minneapolis, Minnesota	73
	Bound Brook, New Jersey	74
Tar and Pitch	Charlottetown, P.E.I.	18 $\frac{1}{2}$
	Campbellton, N.B.	21 $\frac{1}{2}$
	Shawinigan Falls, Quebec	30
	Montreal	31
	Trenton, Ontario	37
	Toronto	38
	Welland	40
Coke	Mont Joli, Quebec	\$2.70 per ton
	Trois Pistoles	2.90
	Riviere du Loup	3.20

Additional uses for some of them probably will be found in further adjustments at the steel plant for better utilization of the fuels needed by that industry.

The foregoing figures indicate the points to which shipments of coal products have been made. They also give the costs involved in such shipments. It can be assumed that shipments of creosote oil, tars and pitches are essentially for use in chemical industries.

By-product coke production in Nova Scotia accounts for less than 10% of the normal coal production of the Province and is due almost entirely to the needs of the steel industry. Only one other community (Halifax city) uses coal for gas and coke production. Considerable quantities of Nova Scotia coal are coked in Montreal (LaSalle plant) and elsewhere for production of domestic and metallurgical coke and gas for industrial and domestic use.



Coke for Domestic Fuel

The LaSalle coke plant requires special mention. This plant, consisting of 59 Koppers ovens (1939) has a capacity of some 500,000 tons of coal per annum and should be a steady market for Nova Scotia coal, particularly that from the Cape Breton field.

The Duncan Commission of 1925<sup>1</sup> supported the proposals of the Dominion Fuel Board, advocating the use of Nova Scotia coal in coke plants in Quebec and Ontario to produce coke for domestic use and thereby replace imported anthracite. The second Duncan Commission (1932)<sup>2</sup> expressed disappointment at the failure of this scheme to enlarge the markets for Nova Scotia coal. It reports that the LaSalle operators "felt (what was needed) was coke which would reduce to free ash as anthracite reduces to free ash rather than a coke which produces an ash that clinkers as Nova Scotia coal does." The Commission concurred in this decision and acknowledged a limit, set by the LaSalle plant and the Dominion Fuel Board, at 33 1/3%. Consumption of Nova Scotia coal for this purpose has stabilized at about this per cent. A complete reconsideration of this problem is justified today.

Further use in domestic furances of coke made from Nova Scotia coal must depend upon an educational programme on methods of firing coke in domestic heaters.

Many advances in domestic heating appliances have been made since 1932. Semi-automatic burners such as blowers and fully automatic stokers of both underfeed and spreader types have been developed to simplify home-firing, and use finer sizes (and poorer qualities) of coal or coal products. Applications of Nova Scotia coal in full or in part (i.e., as blends) should increase domestic consumption in Quebec and Ontario markets.

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<sup>1</sup>Report of Royal Commission respecting the coal mines of N.S. 1925, p. 57.

<sup>2</sup>Report of Royal Commission " " " " " " 1932, p. 29.





One such market is worthy of special mention. Many domestic blower installations designed for hard (anthracite) fine coals are today handicapped in that they need special ash fusion conditions in order that the ash when formed in the blower will adhere sufficiently to allow its removal through the furnace door in one lump or cake. This condition was well met in Welsh anthracite but the ash of American anthracite now being used will not cake. Present practice is to add small quantities of ground iron ore to the American anthracite on firing. This lowers the fusion point of the ash sufficiently to form a cake.

It is suggested that screenings from coke made with Nova Scotia coals should blend particularly well with the American anthracite blower coal, giving good fuel value, a lower overall ash content, and the necessary "stickiness" to the resulting blower ash cake for satisfactory removal from the furnace. A market for fine coke screenings might be found in this way. It will have the added advantage of introducing Nova Scotia coke to the Quebec and Ontario domestic markets.

#### Liquid Fuels from Coal

Different methods for the production of liquid fuels, motor spirits, diesel fuel, etc., have been developed during the past twenty-five or thirty years. These include:

- (1) Direct conversion of coal by hydrogenation  
(Bergius process)
- (2) Indirect conversion of coal by
  - (a) carbonization followed by hydrogenation
  - (b) gasification followed by hydrogenation  
(Fischer Tropsch process)

An excellent review of the principles of these processes is given by Stansfield and Lang<sup>1</sup>. The Bergius process produces a product resembling petroleum by treating fine pulverized coal suspended in a liquid medium with hydrogen in the presence of a catalyst at high temperature and pressure. The process is complicated and only large scale units are practicable. Something over 60% by weight of coal processed is converted into a liquid product but no by-products are recovered. Additional





coal is required to produce the hydrogen and supply heat and pressure. Three to four tons of coal are required for each ton of liquid fuel produced. Modern tendency in Germany and Great Britain is to also hydrogenate coal tar derived as by-products from both low temperature and high temperature coking plants.

The Fuels Laboratories, Ottawa<sup>1</sup> have made intensive study on hydrogenation of several Nova Scotia coals.

Hydrogenation of coal tar products from both high and low temperature carbonization is a recognized commercial process, providing there is adequate market for the coke and gas currently produced. The process forms an alternative market for the tar products of carbonization. It is perhaps unnecessary to add that, if the tar is used for this purpose, it will not be available for production of other things such as plastics, drugs, dyes, etc.

The Fischer Tropsch process converts coal (or coke) to water-gas (carbon monoxide and hydrogen) and then by careful adjustment of the relative quantities of the gases and careful control of temperature and pressures, synthesizes the mixture in the presence of a catalyst to produce what is essentially a synthetic petroleum. About 40% of the fuel value of the coal is obtained in the liquid products.

#### R E C E S S

BY COMMISSIONER McLAURIN: Mr. Cohen, you are not going to be available tomorrow?

MR. COHEN: I am sorry to be obliged to ask for another indulgence in respect to the proceedings of the Commission. By some process that I am not quite able to understand my office made train reservations out of here tomorrow morning--at least I presume it is my office--and I think it was anticipated then that perhaps the brief that was expected from the Government

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<sup>1</sup>T. E. Warren and K. W. Bowles, "Tests on Liquefaction of Canadian Coals by Hydrogenation," Bureau of Mines, Canada. Pub. Mo. 798.



would be in and there would be some opportunity of discussion about it. I have tried during the day to make some change in that reservation but that is impossible.

BY COMMISSIONER McLAURIN: You are not going to be in New Glasgow?

MR. COHEN: No, I will be rejoining the Commission, I hope, in Ottawa on the 26th of February, but not before.

BY COMMISSIONER McLAURIN: You were not able to get a reservation for Saturday?

MR. COHEN: I suggested either Friday night, Saturday morning or Saturday night.

BY COMMISSIONER McLAURIN: We would like to meet your convenience as far as possible but we feel that this sort of thing will come up again and we had better lay down some sort of rule that we will follow everywhere about adjourned matters. If it is impossible for you to do it tomorrow it might be possible for you to submit a memorandum to Dr. Cameron, probably in the nature of interrogatories. You will get a transcript of Mr. Frawley's examination, and interrogatories might finish the job as far as you are concerned.

MR. COHEN: I wonder if I could take advantage of that suggestion by perhaps proposing that if after examination of the transcript it seems to be possible, I follow that course, but if on the other hand ---

BY COMMISSIONER McLAURIN: The transcript may be enough but if it is not, submit some questions--we will call them interrogatories--to Dr. Cameron. We don't like the idea of being back in this field when we get to our next sittings at Sydney, because there will be the Mine Workers' brief and then there are certain aspects of the Dominion Steel and Coal that will come up again, financial aspects of their picture, and we would like to restrict it to those things if we could.

MR. COHEN: By then I will have had some reasonable advance notice of the fact that I am involved in the proceeding. As is known to the Commission, I had little or no notice when





I came in a week or so ago, and while certainly I will do what I can to assist I don't know that I could at all feel that the matter could be disposed of completely by way of interrogatories. I was going to suggest that if I thought after reading the transcript that that seemed to suggest itself as a method of disposing of it I would prefer that that would be done, from my own standpoint, but I understand that so far as Dr. Cameron is concerned--and I took the opportunity of speaking to his Minister--that there is no objection on their part to Dr. Cameron being available at Sydney. I was not suggesting for a moment that we return to Halifax, and since at Sydney many matters will be gone into I don't know that you would really require to go beyond probably the field that you are covering at that place and at that time, and I am quite sure that those who are interested in the matter would perhaps feel that the greatest flexibility in that regard should prevail.

BY COMMISSIONER McLAURIN: I expect we will run into this same thing out West and we want to avoid the risk of finding ourselves with tag ends in the record--somebody's examination adjourned. You know how difficult that is. We are consulting our own convenience really as a Commission as to how far we should go in this.

MR. COHEN: I think that you should, but looking at it quite objectively I don't think you would be inconveniencing yourselves at all if the method I suggest should be followed. As a matter of fact it may be more timely that I discuss matters with Dr. Cameron then than now, because at that time the submission of the Trade Union will be complete and there may be points on which we find ourselves on common ground which may not be quite so clear to me at this time. This request arises purely out of the fact that when I saw the brief, I think the night before last, I realized at once that we would not get through with it in a day and then spoke to Mr. Frawley.

BY COMMISSIONER McLAURIN: We will leave it this way: that you will first try to meet your requirements by interroga-



ories, if you find it necessary at all, and that if absolutely necessary you may make a request to the Commission in Sydney. At the same time we will be on the record that we have not encouraged that course and we will not necessarily agree to cross-examination at that time.

MR. COHEN: Well, if that be so, very frankly I would feel that rather than put the organization that I represent, and any interests similarly concerned with the matter, in any jeopardy because of some personal situation of my own, I would ask that Mr. Wade, who is research director of the organization, be permitted to go on tomorrow and examine on my behalf.

BY COMMISSIONER McLAURIN: Another alternative is to skip your reservation.

MR. COHEN: That is quite a risk. I must be in Toronto on matters on Monday. I came here cancelling many matters, and under normal circumstances a train reservation would not mean so much, but out of this area and under present conditions--

BY COMMISSIONER McLAURIN: If we had known about this we might have been able to arrange the Halifax sittings a day earlier. We just don't want to sit in some place too long with nothing to do.

MR. COHEN: I fully appreciate that. As a matter of fact I think it will be noon tomorrow before the presentation is finished and then Mr. Frawley of course will undoubtedly have a number of matters that he would like to discuss, so there is tomorrow taken. I am quite sorry about it. Had it not been that your dates had been advertised in the press I would have made a suggestion along the line of opening yesterday rather than today, but I felt that since the dates were advertised in the press it was out of the question.

BY COMMISSIONER McLAURIN: I think we have got to remain firm on this general question of creating a principle of having tag ends. You may be sufficiently persuasive at Sydney and with the co-operation of Mr. Currie if you want to have





Dr. Cameron there you can have him, but we don't want to go on record to that effect.

MR. COHEN: Then in that case I would not think it proper that any of these personal details should expose the organization to the risk of no examination of Dr. Cameron, and that being so I would ask Mr. Wade to go on, and perhaps some other day on some other occasion I may meet Dr. Cameron. I am sure there will be some situation to give rise to it. As I understand it, the Commission declines to agree that if Dr. Cameron is available in Sydney I will have the opportunity to cross-examine him?

BY COMMISSIONER McLAURIN: It doesn't necessarily commit itself to permitting cross-examination of Dr. Cameron at Sydney.

MR. COHEN: There is one other matter--and I am sorry that we are getting on into the overtime area--that I should mention, and it won't take me more than a minute or two. Since the hearings were adjourned in Sydney last Friday I have had some opportunity of examining the questions submitted at the close of that sitting by Mr. Frawley that were placed upon the record, and I have examined these questions and have taken the opportunity of suggesting to Mr. Frawley as to ten of the questions a little elaboration that might assist. I have put it in the form of a letter to Mr. Frawley and Mr. Frawley then will have an opportunity of examining into them with the care that they should receive and indicating to me whether his questions will be so elaborated or not.

BY THE CHAIRMAN: I think apart from that altogether you have the right to ask any other questions in the form of a questionnaire.

MR. COHEN: I thank the Commission for the permission indicated of communicating, I would take it, through Commission counsel.

BY THE CHAIRMAN: The letter will go on the record.





Mr. J. J. Frawley, K.C.,  
Counsel, Royal Commission on Coal,  
Lord Nelson Hotel,  
Halifax, Nova Scotia.

Halifax, N.S.,  
Feb. 1, 1945.

Dear Mr. Frawley:

Pursuant to the few words we had this morning, my suggestions as to a little elaboration of a few of the questions submitted by you to the corporation at the last sitting in Sydney are as follows:

- 1) In question 2, line 2, the term "mines owned" should, perhaps, be substituted by the term "coal areas leased."
- 2) That question 5 be regarded as 5a and 5b be added as follows: "As to each colliery in each year: (1) the total annual cost of production; (2) the total number of shifts worked; (3) an account of the degree of mechanization in any such colliery and the relation thereof to production costs."
- 3) In question 6, after the word "non-producers" in the 6th line, the following be added: "and the total number of shifts worked in each such year respectively by producers and non-producers."
- 4) In question 7, add at the end of sub-clause (b): "and to be broken down between avoidable and unavoidable causes of absence from work/"
- 5) In question 8, add as sub-clause (f): "Financial statements for the years 1939-1944 inclusive of any such subsidiary or affiliate."
- 6) As to question 11, add to the end of the question the words: "for each of the years 1930-1944 inclusive."
- 7) As to question 12 - (a) substitute "1930-1944" for "1932-1939" in line 4; (b) add as sub-clause (j): "Financial statements for each of the years 1930-1944 inclusive of any rail or shipping company subsidiary or affiliate of the corporation."
- 8) As to question 20, add to the end of the question: "and whether any check or investigation with respect to any such subsidies has been made as to any of the coal or associated companies of the corporation by the Emergency Coal Production Board and/or the Coal Controller and whether any report or particulars of any such report has been received and if so, the views and observations of the corporation in respect thereto."
- 9) As to question 21, add in (b) after the word "the" the following: "amounts sold and the".
- 10) As to question 24, add as sub-clause (c): "Does the corporation or any of its subsidiaries or affiliates sell any imported coal and if so, as to each of the years 1930-1944 inclusive, the sources, the amounts, the grades and the respective selling prices."

Yours very truly,

(Sgd.)

J. L. COHEN.



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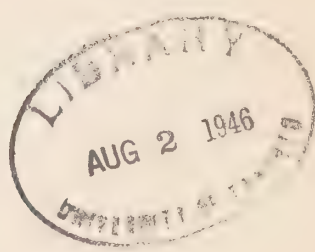
ROYAL COMMISSION ON COAL

Halifax, N. S., February 2nd, 1945.

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THE LIFE OF

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LIST OF EXHIBITS

- Ex. No. 47 - Submission by #7 Branch  
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- Ex. No. 48 - Letter to Commission from  
A. T. O'Leary & Co., dated  
Feb. 2/45, with sheet of  
imports of coal & Coke  
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- Ex. No. 49 - Brief submitted by  
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HALIFAX, N. S., Friday, February 2nd, 1945. - 10:00 A.M.

COMMISSION RECONVENED

Dr. A. E. Cameron takes the stand and continues Brief, Ex. 46.

Hydrogenation of coal tar products from both high and low temperature carbonization is a recognized commercial process, providing there is adequate market for the coke and gas currently produced. The process forms an alternative market for the tar products of carbonization. It is perhaps unnecessary to add that, if the tar is used for this purpose, it will not be available for production of other things such as plastics, drugs, dyes, etc.

The Fischer Tropsch process converts coal (or coke) to water-gas (carbon monoxide and hydrogen) and then by careful adjustment of the relative quantities of the gases and careful control of temperatures and pressures, synthesizes the mixture in the presence of a catalyst to produce what is essentially a synthetic petroleum. About 40% of the fuel value of the coal is obtained in the liquid products.

The process gives a slightly lower yield of oil per ton of coal (that is within the straight Bergius process) but lower capital and operating costs compensate for these losses.

The Fuel Laboratories at Ottawa<sup>1</sup> have reported on low temperature carbonization tests on Sydney area coals done in Illingworth plant at Pontypridd, Wales.

The Bureau of Mines has in hand the development of elaborate carbonization and hydrogenation experimental station at Ottawa where further tests of Nova Scotia coals for hydrogenation by Bergius and Fischer Tropsch processes can be undertaken. The Department of Mines is in constant touch with these developments.

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<sup>1</sup> R.A.Strong and E. J. Burroughs, "Tests on Sydney coal in the Illingworth Low Temperature Carbonization Plant", Bureau of Mines, Canada, Pub. No. 721, p. 8.



BY THE CHAIRMAN - Have they made a recent investigation at Ottawa regarding the uses of Nova Scotia coal for cooking purposes?

A. Not within recent years Sir. Within the last ten years they did some work, but not within the last few years so far as I know.

CONTINUES BRIEF

Chemical Uses of Coal

Many chemical industries depend upon coal or by-products from coal as a raw material for processing. Plastics, including nylon, drugs, dyes, synthetic rubber, etc. all involve the use of coal tar products. Synthetic compounds such as ammonium nitrate may be made from coal, coke or char. By controlling conditions the chemical engineer can evolve molecular arrangements of hydrogen, carbon and other elements to make many kinds of substances for many kinds of purposes.

In all of these processes the mineral matter impurities in the coal are a detriment and the processes require low ash coals or equipment for the mechanical removal (washing) of mineral matter prior to final processing. All require other substances besides the coal and costs of obtaining these usually play a greater part in selection of the site for the industry than the origin of the coal. Most of them require large amounts of electric energy in proportion to the amount of coal used. Some of them require large amounts of water of very close specification as to quality and temperature. Most of them depend upon tar and oil by-products from carbonization rather than raw coal. All of them can use other carbonaceous materials such as petroleum or even wood pulp, straw, peat, etc. to supply the hydrocarbon compounds required for the process. Cost of raw materials and power are the primary factors. Coal or products from coal are competitors to these other materials and industries using coal or coal by-products for these purposes must be economic.

Development of industries of this type in Nova Scotia must depend upon question of cost of production of the





coal or upon the use of what would otherwise be waste material from the coal mining industry. They cannot be expected to absorb any large part of the coal production of the Province.

BY MR. FRAWLEY - Dr. Cameron, even in Alberta natural gas would be in direct competition with coal as a starting point for Fischer Tropsch?

A. Absolutely sir, it is today.

#### CONTINUES BRIEF

First general investigation of the coal fields of Nova Scotia was that made by Richard Brown for the General Mining Association prior to 1870. The excellence of this work is shown by the fact that the coal lands leased by the General Mining Association on the basis of Brown's work remain today the major reserves of coal in the Province. Following Brown the areas were further studied by Dawson, Poole, Fletcher and other noted geologists and scientists in the general studies of the geology of Nova Scotia undertaken by the Geological Survey of Canada.

The Province desires to express here its indebtedness to the Geological Survey, the Bureau of Mines, and the Dominion Fuel Board, all of the Dominion Department of Mines & Resources, Ottawa.

The work of Dr. W. A. Bell of the Geological Survey, besides forming notable contributions to the science of stratigraphy and paleobotany has resulted in a complete delineation of many of the coal fields.

Other members of the staff of the Geological Survey including: Dr. G. W. H. Norman, Dr. I. W. Jones and Dr. A. O. Hayes, have made substantial contributions to the present day knowledge of the fields. The reports and technical papers of these scientists form a basic library of facts and knowledge for more detailed investigations on individual occurrences.

At this point acknowledgment is also made of the work of Dr. F. W. Gray and his son Dr. R. H. Gray for complete studies of the Sydney Coal Fields, interpreting geological



features revealed by the mining operations. Dr. F. W. Gray has also made many contributions to the general problems of the industry and the community life that exists through it.

The staff of the Fuels Division, Bureau of Mines, has contributed greatly by their scientific research on the quality and utilization of the coals. The physical and chemical surveys of coals made by Messrs. B. F. Haanel, R. E. Gilmour, R. A. Strong, E. Swartzman and their associates form a body of knowledge which can be used for interpretation of industrial applications and utilization of all the qualities of coals found within the Province. This work included physical tests for storage, friability and washability, and chemical investigation for composition of both coal matter and mineral matter in coals from all the important producing fields.

Extensive experiments have been carried out by these laboratories, also on carbonization and hydrogenation of the coals. All this investigation research has laid firm foundations for development of preparation and processing plants for the greater utilization of the coal resources of the Province.

BY MR. FRAWLEY - Before you get into carbonization. On the matter of sizing and washing, did those people recommend installation of any of those things in the Cape Breton area, Haanel or Gilmour?

A. I don't recollect recommendations, but they have seen some of the necessary fundamental work on which washing equipment can be designed.

Q. Have they expressed any opinion, like yourself, that the washing and sizing may better be done at the place where the coal goes into market, rather than at the pit head?

A. I cannot recollect that.

Q. That is pretty well your own idea on account of the friability of the Cape Breton coals?

A. That was the general idea, yes.

CONTINUES BRIEF

The Dominion Fuel Board by collection and





tabulation of statistics and by direct assistance in problems of marketing of Nova Scotia coals has been of fundamental help and value to the industry and the province.

The work of the Research Council of Alberta should also be mentioned here. Although done upon Alberta coals, the results of extensive scientific research and investigations on industrial uses of coal have a direct value to Nova Scotia coal problems.

The Department of Mines of the Province has undertaken both detailed geological examination of individual coal fields and experimental investigation and research on utilization of the coals from the various fields. Through mutual agreement, the Department leaves the question of general or areal geological work to the Geological Survey of Canada. The problem of correlation and areal extent of the fields can be better undertaken by the Dominion geologists with their wider knowledge gained through national activities. Detailed examinations of individual fields of limited extent or of individual projects has been undertaken by the Department, utilizing the service of Professors of Geology in the Provincial Universities as well as members of its own staff. Detailed examinations have been made of Inverness<sup>1</sup>, Joggins-River Hebert<sup>2</sup>, Port Hood<sup>3</sup>, Mabou<sup>4</sup>, and Chimney Corner<sup>5</sup> fields.

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1. J. H. McLean, "Geology and Coal Resources of the Inverness Area" - Report on Mines, Nova Scotia, 1939, Part II, p.114.
  2. M. G. Goudge, "Joggins-River Hebert Coal Field", A Review - Report on Mines, Nova Scotia 1944 (in print).
  3. G. V. Douglas, "Geology Port Hood Coal Area", Report on Mines, Nova Scotia, 1944 (in print).
  4. G. V. Douglas, "Geology Mabou Coal Area", Report on Mines, Nova Scotia, 1944 (in print).
  5. G. V. Douglas and N. R. Goodman, "Chimney Corner Coal Field", Report on Mines, Nova Scotia, 1941, p. 68.

More detailed reports with maps and sections at large scales are on file at office of Department of Mines, Halifax, and available for examination by those interested.



The Department's diamond drills equipment and personnel have been used in all fields to assist geological studies by both the Geological Survey of Canada and in the Department's own work.

Acknowledgment is here made of the excellent work done for and on behalf of the Department by the Professors of the provincial universities. Their work is of fundamental importance in the records of the mineral resources of the Province.

An Advisory Board on Coal Investigation was organized in 1928 and undertook extensive research on the coals of the Province.

BY COMMISSIONER MORRISON - Who did that include?

A. The University Professors, Representatives of the Bureau of Mines at Ottawa, and representatives of the industry in general.

CONTINUES BRIEF -

The Board included representatives of the Fuels Division, Bureau of Mines, Ottawa; the Nova Scotia Technical College; and of the industry generally. Special reports were issued by the Board in 1928, 1929 and 1930 dealing largely with investigations on efficiency in burning and methods of firing Nova Scotia coals. The work was undertaken in the laboratory of the Technical College and has continued at a lessened rate both there and elsewhere. Space and equipment are limited and the use of only the part-time services of the staff of the Technical College have prevented expansion of these investigations.

Besides these investigations special work has been undertaken largely by diamond drilling for specified information on the subsurface geology and quality of coal seams or to determine extensions of coal seams beyond known limits.





Some of the Department expenditures on these investigations are listed below:

<u>Geological Investigations</u>	<u>Year</u>	<u>Amount</u>	
Inverness	1938-39	\$13,628.22	
Joggins-River Hobert	1939-43	1,283.61	
Chimney Corner	1941	1,241.23	
Port Hood and Mabou	1944	<u>7,159.06</u>	\$23,312.12
 <u>Chemical Investigations</u>			
Advisory Board on Fuels	1928-30	25,118.75	
Stoker Tests	1939-43	6,434.88	
Coke Reclamation	1944	<u>500.00</u>	32,053.63
 <u>Diamond Drilling</u>			
Kempton	1934	3,229.98	
Stellarton	1938	7,527.41	
Inverness	1939-40	13,516.82	
Joggins-River Hobert	1940-41	7,483.48	
Glace Bay	1942	754.52	
Westville	1944	1,307.87	
North Sydney	1944	1,191.55	
Port Hood	1944	<u>3,136.32</u>	<u>38,147.95</u>
			<u>\$93,513.70</u>

From the foregoing outline, it is apparent that much fundamental investigation and research has already been done for Nova Scotia. Nevertheless, much remains to be done. Each coal seam - particularly each new project - presents problems that must be solved before development is undertaken. Complete utilization of the coal resources can be assured only after all facts of the individual projects are assayed. The work that has been done to date, detailed as it has been, still has to be done again and in greater detail for each new project. A study of one or two cases will clarify this point.

For example, the Kempton coal field has been quoted (as a district with potential possibilities for development.) Bed rock in this field is covered with a thick mantle of surface material and outcrops are too scattered and few in number to reveal geological structure and the possible extent of the coal seams. Sub-surface information must be obtained by direct diamond drilling





with correlation of rocks and coal seams made by mineralogical and chemical examination of the cores obtained.

Because the present information indicates that the field is warped by folds and broken by faults, the drill holes will have to be relatively close together. Preliminary estimates indicate that at least 15,000 feet of drilling will have to be done to give a reasonably good indication of the extent and quality of this coal.

BY THE CHAIRMAN - There was something said yesterday which would indicate to me that somebody should have made a survey there many years ago. Do I understand that the coal there would make a good mixture with Cape Breton or other Nova Scotia coal for coking purposes?

A. I think I deal with that again on the next page.

CONTINUES BRIEF

This diamond drilling program would cost at least \$25,000 and would require probably eighteen months to complete. If the seam so determined is of uniform thickness and quality no worse than shown at the surface, over 1,000,000 tons of coal would be proved by the drilling campaign at a cost of perhaps 2.5 cents per ton. If, however, the drilling showed a thin or dirty seam of unmineable thickness and unsaleable quality, the expenditure of \$25,000 would be lost.

Assuming reasonable continuity and quality, the drilling campaign will also indicate the best point of attack for mining and thus make it possible to prepare preliminary estimates on plant and equipment for mining operations.

BY COMMISSIONER MORRISON - Does the Crown still own that lease?

A. No sir, not all of it.

Q. Who has it?

A. It is in the hands of the Elite Anthracite Company; an old lease of long standing.

CONTINUES BRIEF

Present knowledge of the coal indicates that it is relatively unclean (17% ash). Recent investigations indicate



that it should be amenable to washing for reduction of this ash, but much further work is required to determine the most suitable method of washing or cleaning. If the goal is to be considered for blending with Sydney coals to improve the quality of coke for the iron blast furnace, the ash remaining in the clean coal must be studied to determine what effect it will have on the fusion point of the ash in the coke as well as tests on blends to determine the best ratio of Kempton coal for Sydney coal to give the desired improvement. The answer to these technical questions can only be found by investigation on the individual points. Research, investigation and testing are needed in addition to all the purely commercial and industrial problems such as freight rates, method of mining, scale of operations, etc.

BY THE CHAIRMAN - There was something brought to your attention yesterday, and mine was rather a criticism than a question. If this is a good coal for blending with other coals in the Province for making coke, it is a wonder someone didn't take it up years ago.

A. It is only in the last few months that the idea has come of utilizing it for such a purpose.

BY MR. FRAWLEY - These leases have been given to the Elite Anthracite people?

A. Yes.

Q. Are they aliens or otherwise?

A. I think Mr. Wall can give an answer to that.

BY MR. WALL - Senator Foster of St. John, New Brunswick, and Judge Dysart

BY THE CHAIRMAN to DR. CAMERON

Q. You say it has only been in recent times that it was even suspected that it would make a good mix?

A. It is mostly my own idea. I doubt if Dosco would think it is.

Q. We have just come from Sydney where the Consulting Engineer, Mr. Brown, told us it was one of their difficulties, and he suggested bringing in Bituminous coal from Virginia, and here we have coal within the confines of the Province of Nova Scotia,





and nothing has been done, and you say it is only within a matter of a few months that anyone has ever thought of it.

BY COMMISSIONER McLAURIN - It is only a million tons.

BY DR. CAMERON - I say 15,000 feet of drilling might show up that much, and another 15,000 might show more.

BY MR. FRAWLEY - You think it is worthy of investigation?

A. Yes. We started recently. When the mine was opened up last summer we took out some of the coal and had Professors of the Technical College make some washing tests. The mine has since closed and it would be a question of probably unwatering it before we can get more samples.

Q. It has been operated in recent years?

A. It was opened two years ago and has been worked intermittently by a group of people with considerable financial difficulty and inability to carry on as they should.

Q. Supplying local markets?

A. No, they didn't sell a pound of coal. In fact they bought coal from Pictou in order to keep their own mines unwatered.

Q. I thought we had some coal, but apparently we have not.

A. I don't think that is fair.

Q. I would like to follow it up if it is worth it. Why have not the people who hold the lease been doing an investigation?

A. I really don't know how I can answer that. They hold the leases and pay the rentals, and if nobody asks or applies for forfeiture the lease stands. Remember the coal has a high ash content. It worked a little while in the last war when there was such a demand for coal, and also in this war. The Province spent some thousands of dollars to prove the extent of it. We spent \$3,000 on drilling in 1934.

Q. I am only thinking of it in connection with Doseo, and they have not done any investigating?

A. I can't say. I don't know whether they know all about that coal or not.

EXAMINED BY MR. MATTHEWS

Q. Has the Provincial Department of Mines taken into consideration the coals being mined by the Intercolonial Coal Company



for blending purposes, particularly No. 2 which is a very hard texture coal?

BY MR. FRAWLEY - For blencing?

BY MR. MATTHEWS - Yes, with the Sydney coal for coking purposes.

BY DR. CAMERON - That, Sir, I imagine can be shown by a study of that Table No. 3. Compare your analysis there. I have not thought of it. Candidly, I have not investigated that point of view.

BY THE CHAIRMAN - That is at Westville? The Intercolonial?

A. Yes. They have a 60% fixed carbon as against 64% at Kemptown, on the average. Riversdale has 67%. They have a volatile content of 30 as against 18. Acadia volatile is 27 as against Kenptown of 18. It is a question of its classification. I cannot say that I have looked into it.

BY COMMISSIONER McLAURIN - Is this Colonial coal high volatile?

A. Yes. The other is not particularly low, it is 18 or 19 percent.

Q. But Sydney wants a low volatile, and if this is high volatile, that rules it out.

BY MR. FRAWLEY - It is low volatile we are looking for, and you pick our Kemptown.

A. It is the lowest in the Province.

DR. CAMERON CONTINUES BRIEF

A second example lies in the Pictou fields. It has been said that the geological origin of the coals in the Stellarton field (and, perhaps Westville) accounts for the fact that the ash is finely divided mineral matter intimately associated with the coal-forming material. Separation of this ash is not completely possible by accepted coal washing methods, which leave the coal in relatively coarse particles. It is probably true, however, that the ash is present as discrete mineral particles and, if so, it is possible they can be liberated by sufficiently fine grinding of the coal. Once





mechanically liberated, there is reason to assume that modern methods of flotation would find reagents which would give a separation of the mineral particles from the coal particles. Once separated, the clean coal, at that stage in finely divided form, could be carbonized into coke (or char), beiquetted or, possibly, used in the powder form.

Most of this problem is, of course, economic, and costs for each step must be determined. There are, however, hugh tonnages of high ash coal now being left in the mining at Stellarton which could justify investigation and research on these problems. Looking to the future, perhaps the far future, these problems need attention now.

Other examples could be given. The foregoing are probably sufficient to indicate the need of continuous research and investigation. Results will be in proportion to expenditures made.

(I might say there that results might be negative. We cannot help that).

#### CONTINUES BRIEF

Research and investigation, wherever done, can be applied and used. It must, however, be tried on the individual coal or with the individual equipment. These, perhaps repetitions of work already accomplished, nevertheless require laboratories, staff, and time to "iron out the bugs" in the problem as it relates to the individual case.

It is important to note that there are always competing interests in research and investigation. The user of coal desires more efficiency from his fuel so that he will use less of it. The producer of coal desires more efficiency in his operation so that he can produce more coal. These competing influences tend to greatest economy in use of the coal resources. From many examples, one can be taken to illustrate the point.





"Chemical Engineers" long ago proved that smoke, ordinarily characterized as nuisance waste, actually is a concentration of volatiles and combustibles which, when properly ignited can be converted to heat with great economic advantage. Columbus, Ohio, has produced a steam jet over-the-fire consumption of the molecules of waste. (In railway locomotives) it not only totally eliminates smoke, but also saves fuel and reduces bituminous-coal-firing-for-power costs (so) far below diesel oil-fed-engine costs." This is an example of economy in use enlarging markets.

The mine itself is a continuous investigation. Geological structures will change the dip and pitch of the seams. Faults will cut them off. Stratigraphic details vary from place to place; roof and pavement rocks change in character; clay and splint bands in the seam itself come and go. All these geological factors influence the methods of mining so that variations in mining practice, pillars and timbering, haulage grades, mechanical equipment, require experimentation and trial under the differing conditions encountered during the mining operations. Some mines are wet, others are dry. Some coals are brittle and give much dust; others are tough and break to relatively coarse particles. Dust control for health conditions and safety requires attention. There are so many problems that some may receive more attention than others. For example, the dust control problem, - long overlooked, is currently receiving attention.

Continuous research and investigation are necessary. The mines themselves do a great deal during their daily operations. More, and of a more highly technical character, can be done. The National Research Council, the Geological Survey of Canada and Bureau of Mines, Ottawa, are of immense help. They, however, have many national projects to study. Local problems should be studied locally. Laboratories and staff are necessary. The Nova Scotia coal industry needs technical assistance for these and financial help in their accomplishment.



IX - PROPOSALS FOR COAL PROCESSING IN NOVA SCOTIA

The general problems of market and marketing for Nova Scotia coal fields has been discussed. It has been shown that the major production for export from the Province should come from the Cape Breton fields. These coals are relatively clean and processing of them will be more economically performed at their destination in the more densely industrialized portions of the Dominion where regular, substantial markets will be available for the products of the processing.

The other fields, and, possibly, the smaller independent operations in the Cape Breton field, should depend upon and prepare coal for the Maritime Provinces, the railways and such other markets as improvements in quality and preparation will develop. These markets are to great extent seasonal in character and, to a lesser extent, the railways, and the local industries will use appreciably more fuel in the cold winter months than at other times. On the other hand, regularity of employment requires regularity of operation of the mines. It follows that surplus production in the summer months should be stored or banked for winter use.

It has been shown that quality of the coals of the lesser fields requires improvement if best use is to be made of the coal, and if the consumer is to receive best value for his money.

The domestic household today requires carefully prepared fuels for the individual installations. Probably the great bulk of household heating appliances are still common pot furnaces capable of burning, more or less inefficiently, run of mine coal or roughly screened products. Large lumps have to be broken by hand and dust accumulates. There are, however, a large and growing number of domestic appliances; blower, stokers, stoves, etc., which, when fed with carefully sized, clean fuel, will give efficient heating to the house with minimum wastage of heat value and minimum smoke nuisance in the community. Demand for suitable fuel for these appliances will increase. Fuel required for them is usually relatively





small sized particles but closely sized and free of dust.

Oil coating of domestic fuels to reduce the dust nuisance is becoming of increasing importance. Development of fuels for these purposes will increase the use of these types of appliances and, by replacing imported anthracite coal and fuel oil, will increase the Maritime Province market for Nova Scotia coal.

BY THE CHAIRMAN - Is that an oil coating?

A. I should say chemical coatings are used to keep the dust down.

Q. Are they a high cost?

A. It depends on the amount per ton you apply to it. Wetting is done and chemicals in the water; it may add a cent or two, or a few cents.

CONTINUES BRIEF

The modern high-powered railway locomotive uses automatic stoker equipment to fire the boiler, and modern industrial plants also employ these types of equipment. Industrial plants require a relatively small maximum particle size of the fuel. They were developed primarily to utilize the screenings, which were formerly a waste product of mining operations. Their success for efficient firing of fuel has resulted in a demand for more screenings than ordinary mine practice produces, and coals are now crushed to the required particle size. They give a greater efficiency when fed with clean coal. It can be assumed that the day of burning large lumps of coal is past. There will be an increasing demand for smaller maximum particle size and uniform quality both in particle size and chemical composition.

These questions emphasize the need of both close sizing and cleaning of coals before shipment to the markets. Sizing and cleaning produces low grade waste products, which may, however, still have a fuel value if used at the cleaning plant where costs of handling will be at a minimum. One obvious use is for the generation of electric energy; another possible use is in further processing for chemical industries. In this



regard, it is suggested that washing operations can be arranged to produce a clean coal product and a waste with sufficient value to be used for these purposes. Any cleaning operation can be adjusted to give either a maximum of clean coal and a waste with minimum content of "coaly" material, or to give a maximum cleanliness of the clean coal and deliberately allow some coaly material to go to the waste and make it usable.

BY COMMISSIONER MORRISON - What has been done about sizing coal in this area?

A. Most of the mines do rough sizing. They make a screen coal product and a slack. No close sizing. Some of the dealers have equipment for sizing out specific products for local markets. I think some of the more recent installations are giving a greater variety of products than they could in the past.

Q. You can overdo it, of course?

A. Oh yes, definitely.

EXM. BY MR. MATTHEWS - Dr. Cameron may I ask, when speaking of this particular waste matter. I take it with the Inverness plant an experiment was made some time ago by removal of the duff from the slack. I wonder if the use of the duff in the slack would not give greater efficiency for stoker on the one hand and the duff on the other hand would utilize the complete wastage of fuel?

A. There is always a tendency to take some of the duff out. It depends on market conditions. The duff is that material which has such a fine size that it is a nuisance. Where it goes is where you can sell it. You can screen as closely as you like; you have to balance the screenings against the proportions of each. I think a clearer picture will be given later in a discussion of an estimate I made for a certain project later on.

BY THE CHAIRMAN - Do you remember some years ago that there was some coal being recovered in the Port Morien area that





had been buried under water for years. What would you classify that as?

A. I think it was old slack.

Q. Would it be duff or slack?

A. I would classify duff 3/32" in diameter. It is called slug in that instance I think.

Q. They got a good market for it in Nova Scotia, I believe?

BY MR. MATTHEWS - You remember Mr. Friel from Sydney, he was the enterprising gentleman that brought the coal into Halifax and it was regarded as a washing from the coal banks. I handled some of it and saw it burn. It was free burning.

The Easter Fat concern and some of the others used it with great satisfaction. They were very much disturbed when they could not get it. The suction hose had to be very carefully placed in the water to prevent the mud getting into the coal.

BY THE CHAIRMAN - Like all other mines, there was no more coal left in it. I guess that is what ended it.

DR. CAMERON CONTINUES BRIEF

If the costs of primary preparation can be earned by the enhanced value of the clean coal products, the wastes have a nominal value only and can be successfully used for these purposes.

Economical operation of preparation and processing plants require regularity of operation. This indicates that the plants should be established at a field store or bank where surplus screen production can be held for winter consumption and where the irregularities of daily operations can be ironed out in a common pool.

It is suggested that establishment of central preparation and processing plants with storage accommodation of the various sized and clean products would overcome many of the fundamental difficulties affecting the coal industry today. It would assure stability of production for the mines and thus assure regularity of employment for the working force at the individual mines. It would also assure the consumer a uniform





supply of products of uniform size and quality.

Design of such a plant would not be difficult. Limitation of size would be fixed by the estimated production requirements and allotment of markets previously discussed. Market needs may vary with time but they will be changes in particle size rather than in quality. The essentials are: raw coal receiving bins equipped with facilities for weighing and sampling all deliveries. Washing or cleaning section, drying facilities and ample storage accommodation for various sizes of products. The last item should be under cover storage with equipment for feed to and discharge from the storage bins, which will give minimum breakage to the cleanly sized coal. The plant should include steam-generated electric power units, utilizing washings and other waste products. Additional plants for carbonization, chemical processing, etc. could be developed as research and investigation warranted.

Rough estimates of capital and operating costs of such a plant are outlined in Appendix III. These estimates are approximate only and individual projects must be thoroughly studied before undertaken. The estimates given are believed to represent the order of expenditures involved for a stated case.

We might look at that just for a moment. You will see that the estimates which have been made, granted they are approximate, require capital expenditures, and as a basis for the estimate we have taken the Joggins area with estimated production of 400,000 tons as against its present operation of 300,000 tons. We have taken the results of the Bureau of Mines investigation as far as screened analysis is concerned and as far as quality of the coals in those analysis are concerned. Briefly we can see that a plant costing perhaps five million dollars, of which  $3\frac{1}{2}$  million would be Power Plant and  $1\frac{1}{2}$  million coal screening plant, would give us a production of about 17,500 K.W. and a clean coal production, 284,000 tons of clean coal to whatever size the market would desire, at a cost of 85¢ per ton of screened coal.



BY THE CHAIRMAN - Would that be in addition to what they are doing down there now?

A. They are taking the slack coal from the screening and generating power.

Q. They are doing a good work. Does the suggestion you are making mean additional power?

A. Yes, anything used at that point would be in addition to what is already there, definitely. 17,500 K.W. is not a large sized plant. The cost production of the power is estimated perhaps at a very low figure, I think it is possible 4/10 a K.W.

BY THE CHAIRMAN - I think I should add that these people should be congratulated on the use they are putting their coal to and the good that the people are getting out of it in the vicinity.

CONTINUES BRIEF

The fundamentals of the coal marketing problem are uniformity of product. Nature imposes an irregularity of demand upon the products of the mines. There must, therefore, be a surge tank or bank between the producer and the consumer. If the producer knows that he has a regular point to which he can ship his product throughout 250 or 300 days a year and for delivery of which he will receive payment regardless of the immediate demand for his product, he can establish his rate of production and the size of his working force for uniform operation and for minimum costs. At the other end of the chain, if the seller (or consumer) knows that there is an adequate bank of material of uniform quality from which he can draw and, if he knows that that quality will remain uniform throughout the life of his contract, he can arrange his actual consumption and adjust his operating costs so as to result in minimum overall costs on his fuel supplies.

It is suggested that storage and processing plants of this nature should be established in certain fields in the Province and that consideration should be given to the question of financial assistance for these by the Dominion.





X - UNIVERSITY TRAINING

Mechanized mining and the intricate preparation of coal bring a demand for better trained and more highly skilled personnel. The problems of vocational training have been discussed. Requirements in coal mine management require a higher intellectual attainment and more intensive technical education than is possible through the present system of vocational training of officials. University grade personnel must be obtained and used in greater numbers than heretofore. Today there is very little interest in coal mining amongst university undergraduates in mining. Interest must be stimulated leading to their permanent employment after graduation.

The Committee of Student Interest in Coal Mining of the American Institute of Mining and Metallurgical Engineers made an extensive survey of the mining schools of the United States and Canada in 1938. It showed<sup>1</sup> that, during the period 1918 to 1938, the United States coal mining industry took from 15 to 20 graduates per year or, approximately, one graduate in 15. This ratio has increased in recent years to about one in ten. Small as these figures are, those of Canada are still less. Very few graduate mining engineers have recently entered coal mining in Canada.

Canadian universities are not responsible for this condition. All mining courses include studies in coal mining practice, and some universities offer special courses in coal mining. All are ready to cooperate with the industry and the workers in it to educate and train personnel in the technical aspects of the profession. The laboratories are not equipped, perhaps, with the types and kinds of machinery used in coal mines. They would have been if the demand for training had been there. Students from coal mining communities, like those from the farms, have been turning away from careers in this native environment. The sons of coal miners, with the best natural

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<sup>1</sup>Alford, N.G. "Some Aspects in the Trending of Young Engineers to Coal Mining." Trans. Mining Society of N.S., Vol. XLIII, 1940, p. 599.



equipment, most often seek work in fields with seemingly greater promise.

BY THE CHAIRMAN: I had a very nice communication from a student at one of our universities suggesting that the reason that more students who are interested in this field of science do not go far is because they cannot afford it, and they say that the answer is scholarships, by Governments or by the coal industry or the steel industry or something of that kind.

DR. CAMERON: Yes sir, it is coming. (Continues brief): There are several explanations for this condition, each playing its own part in restricting entrance of young men into the profession:

(a) Primary education is not carried far enough before the young man in the coal community starts to work for his living.

BY COMMISSIONER MORRISON: I am entirely in agreement with the statement. What does the provincial law say on that question? How old must you be before you can go in the mine in the Province of Nova Scotia?

DR. CAMERON: Sixteen. They can go to work in the mine at 16; they can go to the face at 18.

BY COMMISSIONER MORRISON: Well, it is too low. I appreciate that the Province cannot do much about it now because of Federal regulations. Don't you think that you could whisper in your Minister's ear that he bring in an amendment at the conclusion of hostilities that it be increased to 18?

BY MR. FRAWLEY: What is it in Alberta?

COMMISSIONER MORRISON: 18.

DR. CAMERON continues brief:

(b) The costs of university education are beyond the means of many.

(c) Provincial legislation has insisted on too long a period of practical experience after graduation before certification as required by the Coal Mines Regulation Act.





BY COMMISSIONER MORRISON: Are you serious about that, Dr. Cameron?

A On the whole I think so, sir, yes. It is elaborated a little bit later.

Q After all that is a serious statement: "Provincial legislation has insisted on too long a period practical experience." Don't you think that in addition to learning this thing out of a book that we need more practical experience?

A Yes sir, but they need it during their university education. We come to that on the next page, if you will forbear with me.

DR. CAMERON continues brief:

(d) Labor organizations have not cooperated to permit students obtaining practical experience by part-time work in the mines during their university period.

(e) Industry has not encouraged young men by financial assistance and part-time employment with close supervision of training.

It is gratifying to note that present day trend is towards the elimination of these conditions. Technical institutions are planned in the coal districts. These will permit of greater emphasis on fundamental education for each syllabus in the schedule of training for official positions in the industry and should play an important part in influencing competent men towards the profession. By classes offered both in the day and the evening, they will be given an opportunity for continuing study, whilst employed in the mines.

In the United States, the United Mine Workers of America have permitted students to work in the mines during summer vacations for experience upon payment of usual dues to the Union. The students have been granted exemption from payment of initiation fees. No doubt similar arrangements can be made with Canadian district executives of this organization when the question arises.





BY COMMISSIONER MORRISON: You didn't have to go to the United States for that.

DR. CAMERON: Actually I am quoting rather freely from the American Institute's publication. (Continues brief): Regardless of its other advantages, summer work at the mines gives the student while still in college the broadening experience of living and dealing with fellow workmen. Short periods of work between periods of attendance at college keep the student in touch with practical affairs in mining. These periods can now be used as part of the time requirements for preparation for certification under the Coal Mines Regulation Act. They were not allowed in the past.

Industry is promoting scholarships at the universities and is ready to employ undergraduates at summer work in the mines. These steps are handicapped by two difficulties: (a) locating excellent young talent already in the mining ranks; and (b) attracting the undergraduate to spend his holiday periods in the mines. Time and thoughtful planning of the programme of training of the young man will overcome these handicaps.

The Mining Society of Nova Scotia, for the past five years, has granted scholarships to students in mining at the Nova Scotia Technical College, and the students obtaining them have been offered employment in the industry upon graduation. Few of them have availed themselves of this opportunity, chiefly because of enlistment in the Armed Forces but partly, also, because immediate financial returns are not as attractive as those offered in metal mining.

Government assistance has been offered through student loans to undergraduates as a wartime measure. It did not include mining, as at first proposed, but pressure from the Canadian Mining Institute and the industry had it included. Practically all recipients that have graduated have been absorbed by the Armed Services and very few have been available



to the industry, either metal or coal mining.

It has been proposed that in the postwar period this procedure of government loans to worthy students should be continued and expanded to include scholarships, and plans are being developed to this end by the Department of Labor, Ottawa, and the Departments of Labor, Education and Mines in the Province. The coal mining industry requires special consideration in these plans.

BY THE CHAIRMAN: That was not just the kind of scholarships I was thinking of. You are talking about men who will give their life to the mining industry as such. I am talking about scientists who will devise ways and means, by study and research, of getting something more out of coal than we are getting now. That was the kind of a scholarship I had in mind.

DR. CAMERON: I think that a man will be allowed to follow his natural bent in the scholarships.

BY THE CHAIRMAN: No, they are not sufficiently large. However, I am not suggesting that they are not doing a good work in the other field.

DR. CAMERON continues brief: Present supply of young coal mining graduates is limited and four years at college are required for graduation. In the meantime self-development courses are under way in many of the collieries, preparing promising young men for supervisory positions.

There are thus many indications that the question of technical training for coal mining is under consideration. They should be coordinated and, perhaps, centralized. The newly organized Coal Division of the Canadian Institute of Mining and Metallurgy has this problem under consideration.  
(See end of Volume for Appendix to Brief)

EXAMINED By Mr. Frawley.

Q In your brief on page 27 you made reference to surplus labor and I am inclined to think that it is just possible that a false impression may have been obtained on the reading of that. You say: "Community development adjacent to





any industry normally exceeds the actual need for capacity production and this is desirable because it assures a surplus labor population, which in turn gives a pool of labor for fluctuating demands of output. Sickness, holidays, absenteeism have to be met from the pool. It is an accepted principle of industrial development that a fundamental need for any industry is an adequate source of competent labor. Development of the war industries during the past five years in or near large communities or in densely populated areas has emphasized this principle." Now I put it to you that there might be read into that this: that there is necessary a pool of labor unemployed, waiting to meet the demands of some particular industry? Now is that what you intended to convey?

A Well, certainly not, sir.

Q Do you care to say anything more about that?

A Candidly I can't see why such an idea would enter--it is the last thing that would ever enter my head that it meant that. There is always a labor force required, some days more than in others. We have a man sick and we have to replace him from somewhere else in the working force; we have to have somebody else there. There is always a shifting of labor, and there was certainly no intent in the mind of myself when I wrote that that there is going to be a big floating population, those on the starving line, from which men can be drawn. That is contrary to the conception of things today. No one thinks in those terms today.

Q That was a concept of a generation ago?

A Possibly.

Q But you intended to convey no such idea?

A Absolutely not.

Q The surplus of labor you talk of is a surplus of labor within the industry?

A Within the industry.

Q Or otherwise employed?

A Otherwise employed. That was the last intention in the world



that there should be a floating population.

BY COMMISSIONER MORRISON: Wouldn't the word "adequate" perhaps fill the bill?

A Adequate would have been a much better word than surplus.

BY MR. FRAWLEY: On page 5 you say that "It is obvious that Canada cannot become completely independent of imported coal. What is needed is a control of the Canadian markets and of the distribution of coal to them in such a way that, while the consumer gets his fuel at a minimum cost, the producing areas can be assured of regularity of demand," etc. Now the Province of Ontario you think should take another 1 3/4 million tons of Nova Scotia coal. Certainly the Ontario consumer cannot get his fuel at a minimum cost if he buys Nova Scotia coal which has been increased in price so as to shut out American coal?

A Well, using the word "minimum" I was attempting to convey, "as cheap as it can be done under the circumstances."

Q You mean within the limits of this national policy which you have conceived the consumer should get his fuel at a minimum cost?

A At a minimum cost, yes.

Q That means then pretty clearly that this Ontario consumer has got to pay more for his coal than if he bought it from the Ohio and Pennsylvania market? That follows obviously, doesn't it?

A Unless the difference in costs are paid from some other source.

Q The difference in his costs are paid from some other source?

A Put it perhaps this way: the price of a million B.T.U.'s of Nova Scotia coal should be the same in the Toronto market as the price of a million B.T.U.'s from American coal.

Q What do you mean, should be?

A If we had those two balanced then we would have the Nova Scotia coal, as far as the consumer is concerned he is paying no more for his million B.T.U.'s from using Nova Scotia coal.

Q You say that the national policy which you advocate should





be such as to make the cost of a thousand B.T.U.'s of United States coal and a thousand B.T.U.'s of Nova Scotia coal the same in the Toronto market?

A Yes.

Q And that can only be done by Government assistance to the Nova Scotia coal, and there is not any doubt about it that those Nova Scotia mines cannot survive without Government assistance?

A That's right. At the scale at which they are working today.

Q What do you mean?

A Production.

BY COMMISSIONER McLAURIN: You must not use the word "survive".

They cannot operate at their present scale?

A They cannot operate.

BY MR. FRAWLEY: Will you just expand on that?

A I mean that the total production of Nova Scotia of 7,700,000 tons has to have a market outside of Nova Scotia.

Q If they are to produce these 9,000,000 tons which you laid down as a maximum--I want to ask you something about that. Did you attempt to find out what tonnage was required to get the Nova Scotia economy up to keep those communities operating, or did you approach it from the other end, what would seem to be a fair amount to produce from these collieries, having in mind their reserves and working forces and so on?

A The sole basis of my calculation is on Table V, sir. The whole thing is given there. If you look at Table V you will see that I took throughout the 10-year period which is shown in Table IV the maximum production of each mine that had operated continuously throughout the 10-year period or was newly developed within the 10-year period. I took the maximum production I think with one or two exceptions.

Q Show me the 9,000,000.

A The 9,000,000 is this figure of 7,702,000 divided ---





Q You mean this figure at the bottom of Table V?

A The bottom of Table V, showing the total provincial capacity of production of 7,702,000 tons with a total manpower of 13,230. Now I said the 13,230 should be increased to 15,500.

Q Why?

A Because there are at least 2,500 men coming back from the Armed Services to be looked after.

Q You approached it from the standpoint of what you needed to keep your communities up?

A What I needed to take care of my existing communities.

Q You wanted to hang on to those communities?

A I wanted to keep those communities up.

Q I don't want to be apologetic. I haven't come all the way from Alberta to destroy Nova Scotia communities, but my purpose is to expose this for the Commission. You say those communities have to be kept up and to do that you want 9,000,000 tons of coal?

A We have definitely 15,500 workers in coal mining in Nova Scotia after the war.

Q That was the base we started with, the number of coal miners we have?

A That's right. Now the position of the individual mine is one place today; it may be another place tomorrow. I mean a mine may die and a new one open up somewhere else. I can't say--I can only speak personally in this case--that the community of River Hebert, let us say, will exist forever. It may be that the new production from the Joggins area has got to come from the Maccan-Chignecto section of that field, which is 12 or 15 miles further east than River Hebert, and a new development there means there has got to be a new community there, but we have still got the total of 15,500 miners.

Q What I would like you to develop is the philosophy that underlies all of that idea. You don't contemplate the abandonment of those mining communities at all?



A As an individual community I can't say that they won't be abandoned, but as a community life within the province they should not be abandoned.

Q You don't contemplate the transfer of employment of some of those miners?

A The basis of any industrial development in this province has got to be coal. We have no water power. If we are going to have other industries we have got to have energy for them and that energy will have to come from coal.

Q There is a lot of coal in Nova Scotia, but basically the large bodies are submarine?

A Basically, yes.

Q And submarine mining means by and large a consistently mounting cost?

A Yes.

Q Don't you think that it involves a tremendous difficulty to keep communities alive when costs are consistently mounting?

A Definitely.

Q To keep employed the labor which lives upon this industry which has consistently mounting costs?

A Yes sir. It is true that the great proportion of our coal comes from Cape Breton. It is true that our great problem of keeping communities alive is a question of the costs of mining in Cape Breton.

Q If your Cape Breton operation was abandoned because of mounting costs your economy would be very materially affected?

A Our coal resources could still carry the needs of the Province of Nova Scotia.

BY THE CHAIRMAN: May I suggest to Mr. Frawley the communities in Cape Breton that are dependent on coal will not have to move very far from their present surroundings if their particular pithead is knocked out, because the whole radius of mining there, I understand, is 35 miles. That is the whole radius of approach to the submarine areas.





BY MR. FRAWLEY: What I was concerned about was to have you say as much as you cared to say on the inevitability of the rising costs and how you could hope to hold communities and men employed in the face of constantly rising costs, and you have perhaps given us the answer, more and more Federal assistance?

A Not completely, of course. More and more technology up to the maximum that can be applied, a greater concentration of working forces at a given point, a more rapid production of coal from a given property and then, in orderly process, the development of the next one, a concentration of your labor force and industrial equipment at one point until the costs of extraction at that point are up, and then a new one, but not a whole series of little ones growing up around about that are suckers of the main root.

Q Do you believe in the principle that there should be an effort made to level costs by opening new seams?

A No sir, I would not say opening new seams to level costs across an industry as a whole.

Q Why not?

A Because you are then going to put out of existence the expensive and the big mines. We could go out and we could find, I suppose, a million tons of near-surface coal today in a number of places in Nova Scotia. You put sufficient capital into it, you can get coal out at \$2.50 a ton. All you would do then would be to stop one of the mines that is now costing \$6 to \$7 a ton. You would stop that mine from working, it would fill with water and you would never get the coal that is beyond the present limits of that mine.

Q That is not what I had in mind. I understand that it is good mining practice to open new seams in an already developed mine or area to level costs? To be concrete, in the Lethbridge area, I understand that in the C.P.R. operation when the haulage reached a mile or more it was regarded as too expensive, so then they opened new shafts to level the



costs.

A Oh, sure, you can do that where you can get at your coal seam at a different point, but you can't in our case because you are confined to the shore points to get at the coal at the deep. You can put cross measures in, of course, which has been done.

Q And that should level costs?

A Of course it does, but remember you have still got that long haulage cost to bring it to the old mine. You are not going to lower costs to the same extent. You will level the costs to a certain point; you will get cheaper coal. To take a concrete case, we can expect that the getting of coal from the new No. 26 colliery through that long tunnel and the greater concentration of operations there for a while will give you cheaper costs per ton at the tunnel mouth, but from the tunnel mouth out to the surface it is going to be the same cost per ton as in the other operation.

Q And the advantage on the overall cost for the whole output of that mine will not be very apparent?

A It is two separate mines. 26 is a separate mine from 1B.

Q So there is not a great deal to look for with the view of getting down those Cape Breton costs from the standpoint of opening up new seams to new levels?

A No, certainly not; I can't see it.

Q Then subject to the application of more technology we are faced with the situation that those costs are going to increase as they go further and further undersea?

A Well, I hope we won't consider the present-day costs in that light. I would say that if we went back to the 1939 costs, which were about \$4.10 cross Nova Scotia--I doubt if we can ever get below that again; I hope we can get back to it and work on that basis.

Q We don't know what those costs are yet.

A I am taking only the figures that have been published by the Fuel Board, which produced them every year.





- Q Well, anyway we will know something about Dosco costs ultimately and we will be in a better position to follow this up, but assuming that the costs as returned to the Dominion Fuel Board--and don't misunderstand me, I am not suggesting that they are not properly returned.
- A The costs that I quote are not the costs of an individual mine or company; it is a cross Nova Scotia cost. It is an average of all the mines that have reported to the Fuel Board from Nova Scotia, that is 34 mines.
- Q I was thinking about Cape Breton. If the Cape Breton operation fails your coal economy has practically disappeared, hasn't it, as far as the Canadian market is concerned?
- A As far as 9,000 or 10,000 workers are concerned.
- Q Where do you look for reduction in costs in Cape Breton?
- A I am looking for a reduction--do you mean a reduction in the 1939 costs or a reduction in the war costs?
- Q In the costs that require a large measure of government assistance to get it into the Ontario market.
- BY COMMISSIONER McLAURIN: You mean peacetime costs?
- BY MR. FRAWLEY: Oh, certainly. If we can keep to the peacetime costs will the assistance be any greater than it was? Will we need any more assistance per ton of coal?
- BY COMMISSIONER MORRISON: The question was, in what are you looking for reduction in costs?
- BY MR. FRAWLEY: Take the 1939 costs and first answer this question: Do you look for any rise, eliminating the war conditions, in those 1939 costs?
- A If I were to plot the costs on a curve you would find that the curve has risen over the years and therefore you cannot expect it to level off, except very slowly.
- Q Let's start with that as our basic proposition. Then in which direction would you look in the Cape Breton area for a reduction in this cost?
- A A greater production per man-day. It is the only answer.





Q And you aren't alarmed about the fact that the operation is limited in its access to the sea and means constantly increasing distance of haulage?

A We have got to still increase the production per man-day. I think I tried to make that point clear in --

BY COMMISSIONER McLAURIN: How do you suggest that the man-day production will be increased?

A I suggest it will be increased by increasing the one item that one can see: mechanical loading and concentration of the working force.

BY MR. FRAWLEY: Will that offset increased distance from the pitmouth and all that is involved in that, larger ventilation systems, longer haulage?

A That is why I figure that we have got to have some rise but I hope it will not be a very fast rise.

Q Do you think that an industry which has the handicap of constantly rising costs is entitled to government assistance?

A I am not asking it for the industry; I am asking it for the people who work in that industry.

Q That brings us right back to what I started with. You say that the basis of your submission is, we must keep those communities alive?

A We must keep the people who work in the mines, keep work for them.

Q The communities alive?

A Communities stabilized.

BY COMMISSIONER McLAURIN: Which gets us down to the thesis that it is employment, not productive employment, which you seek in the last analysis?

A No sir, I would not agree with that. I believe that the employment has got to be productive.

BY MR. FRAWLEY: Let's apply that to some other industry. Do you think that where communities have been built up--suppose you had a fishing village along the shore of Nova Scotia and something happened; the fish production just dropped for



some reason, whether it is a blight, I don't know enough about fishing to know. Would you say, "There's a community there. We have got to keep that community there"?

A I never said, sir, a specific community at a given point. I said the people that are now in the community.

BY COMMISSIONER McLAURIN: You take the position that notwithstanding the rising costs in Cape Breton it was necessary to have government aid to keep that industry going in giving the people there employment?

A That, I believe, sir, is necessary.

Q I am ready to add Cumberland and Springhill to it so that you have Nova Scotia mining, all the one group. You take the position that if the costs rise it is necessary to keep that community intact?

A Pardon me. I say, if we are going to keep those communities intact, and it is the Province's desire that they should be kept intact, that if they are to be kept intact those things have got to be done.

BY MR. FRAWLEY: I said at the beginning that I wanted to discuss this very fully. Is that a sound philosophy?

A From a Nova Scotia point of view. They must be kept alive.

Q There have been ghost towns all over the world?

A Yes, inevitably there will be.

Q This may not be a proper example, but you know all about the oil development in the Province of Alberta. As the oil is depleted in the Turner Valley field Turner Valley disappears from the map of Alberta?

A Yes.

Q Wouldn't you think it would be a false economy if the Alberta Government said, "We must keep that community in Turner Valley there"?

A I don't think you are taking a fair example.

BY COMMISSIONER McLAURIN: Why is the oil not an analogy?

A The temporary nature of the oil reserve.





Q Nothing very temporary about the city of Tulsa, which might disappear tomorrow if oil disappears.

BY MR. FRAWLEY: You know the Turner Valley? You know Mr. Mayland went into Turner Valley and built an industry on the wasting asset of natural gas. Would it be a sound economy to say, "That community is there. Mr. Mayland has a big plant; we must keep him." Or would it not be proper to say, "Mr. Mayland built a property on a wasting asset"?

BY THE CHAIRMAN: I don't think Dr. Cameron ever suggested that those communities should be kept there and the mine kept going when the coal was gone.

BY MR. FRAWLEY: When I say wasting asset, isn't it inevitable that when a coal mine has been depleted the community will disappear?A. When all the coal resources adjacent to that community are gone the community has got to disappear because all the industries that are based upon the coal will also have to go.

BY COMMISSIONER McLAURIN: It is not that all the coal is gone. It is that that coal cannot be productively brought to the surface.

A Oh well, I mean when it is gone from an economic point of view.

Q We can get out of the profit system in these days when other schemes are considered. If you were under a Russian Communistic system you would still be subject to the necessity of productive production?

A Yes sir.

Q It may not be the profit motive that induces somebody to run a mine, but under State ownership such as Russia I don't suppose, with the success they have been securing, that they have been giving people employment for the sake of employment. They have been scrutinizing the thing to make sure that they have productive employment, and whatever our economy may be in this country we have got to look at the same problem. We will not be able to survive unless we have productive employment.



BY MR. FRAWLEY: Large coal reserves have been abandoned because the cost of recovery had got beyond the economic point?

A That is true, but I don't think they have ever been in a case like this.

Q It is true that in Alberta the Hoppi leases were abandoned for a long time and they are now being looked at?

A But those coal reserves were available. New operations could be started adjacent to the old one, but in our case in Cape Breton once you fill 1B or No. 12 with water nobody in the world is going to go down and get the coal that is below.

Q Even in Cape Breton operations have been begun and abandoned? The Jubilee, for instance, on the Northside?

A Yes. I don't remember the exact reason for that but there are a number of cases where a mine--1A was abandoned because in 1B the shaft was closer to the shore. Marine areas have been abandoned because the shore coal has been worked out. The coal under the sea is going to take a lot of development and it is going to be handicapped because of the old workings. You can go into any coal field and you can get the quick crop coal and make a lot of money.

Q Oh no, what was in my mind and what I wanted to get your views on was that there are such things as the operation of wasting assets. I mean, from the time that you take out the first ton of coal your operation is, as it were, on the way out?

A Oh yes, definitely.

Q From the first barrel of oil that is produced the oil-well is on the way out, even though it may take six, seven, eight years?

A Yes sir.

Q And in a coal mine even though it may take 50 years the operation is a depleting one?

BY THE CHAIRMAN: I don't suppose that this Province of Nova Scotia or any other Province is going to look for subventions from the Dominion Government to operate a mine when





there is no coal in it. You see we have a difficulty here of high costs of coal, particularly when we start the submarine areas, and I think as a national asset and a national necessity there should be some help given to an industry where the costs are mounting, not to get out the coal, because we have got to get it out. It is an abeyance to Providence that we should not throw away our assets if they are available, even though we require some national assistance.

BY MR. FRAWLEY: I am far from making any submission to the Commission that that is not so.

BY THE CHAIRMAN: I am only trying to supplement the reasons that have been given by Dr. Cameron. I don't want Dr. Cameron to think that Mr. Frawley is arguing against him; he is only getting at the reasons why you people down here are looking for assistance.

BY MR. FRAWLEY: That's right, the bare bones of it, because I don't think we shall ever be successful unless we get the bare bones of this problem out on the table for this Commission to look at. Now will you tell me this. The costs of the Cape Breton operations, you realize, have got to be very carefully examined?

A Yes sir. Our Department does not look into costs, except in one case. We do take the records, the cost figures as given by the Fuel Board and the Wartime Prices and Trade Board.

Q Let us assume a case, which I am sure doesn't exist in Cape Breton. Assume there was a very wasteful operation there. Suppose in the Dominion Collieries there were huge management costs. Let us assume that two or three people were being paid \$100,000 a year. Do you think that that would not be an important circumstance in the applications for Federal aid? That was the point that perhaps I didn't make any too clear when I said costs have a great deal to do with the merit of the case for Federal assistance.

A The costs have, yes. The breakdown of the costs depends upon the items which you wish to break it down to. You can break





it down to the extreme, as to how many picks are necessary at the coal face to get a ton of coal out.

Q Would you not say this, that if an industry is going to the Federal Treasury for aid then they must be prepared to come in and disclose every cost down to the last farthing?

A Oh yes.

Q And if there is anything wrong with those costs --

BY THE CHAIRMAN: Unreasonable.

BY MR. FRAWLEY: Unreasonable is perhaps a good word, then that must be eliminated before a case can be made out for federal aid?

A Unless you are going to nationalization, sir.

Q Surely an industry is not entitled to federal aid unless it comes into court with very clean hands, isn't that right?

A Of course it is right.

Q Now there were just two or three things that I thought you might like to expand upon. You say at the bottom of page 8 and top of page 9: "Where necessary, assistance should be given for supply of coal to that market by special freight rates, subventions or other assistance." Now what kind of other assistance?

A Probably direct subsidy.

Q Direct production subsidy?

A Direct production subsidy.

Q Such as is going on now under the War Production Board?

You think a condition might exist --?

A Tax relief, another one; perhaps a very important one.

BY COMMISSIONER MORRISON: Such as a reduction in royalties paid to the Nova Scotia Government?

A Well, that is a tax.

BY MR. FRAWLEY: I want to be clear. You don't stop at the question of subventions, which is the only form of assistance we have known to date. You say there should be a production subsidy?



A. If the case demands it.

Q. Don't you think that after you get beyond freight subventions that you would have to make out what I was going to call an overwhelmingly strong case? Oh, I don't know. On second thought it is just a case of funds being paid out from the national treasury, and whether it is in the form of \$2.00 a ton to the railway company or 50 cents to the coal operator you see it doesn't make much difference. Don't you think if you get to that stage that you have practically handed over the industry to the Federal Government, if you have to have not only assistance to move it to market but help out of the Federal treasury to the man who produces it to help him get it to the pithead?

A. Don't you think what we have tried to say is, first of all, that the consumer of Nova Scotia coal is entitled to as cheap coal as he can buy anywhere else; that is, he should not have to pay more for Nova Scotia coal than he has to pay for any other coal of equivalent thermal value.

BY COMMISSIONER McLAURIN: He won't.

A. Now on the other side of the picture the industry has got to live if Nova Scotia economy is going to stand comparable with the rest of the Canadian economy.

BY MR. FRAWLEY: What do you mean by that?

A. Because what other assets, natural resource assets, has it to replace the coal? If we can find them, where are they?

Q. Fishing?

A. One, granted.

Q. But anyway that is getting back to what we had been discussing a few minutes ago.

BY COMMISSIONER McLAURIN: Of course Dr. Cameron has not given the best argument as to why Nova Scotia coal is entitled to assistance. As long as the fiscal economy of this country gives tariffs to other people, Nova Scotia doesn't need to apologize for saying, "We want the same deal." They don't need to worry about wasting assets or anything. What logi-





cal answer can there be to anybody in Ottawa refusing? Of course Ontario and Quebec might get sane and decide they want to go on a free trade basis and then Nova Scotia would lose the argument.

BY MR. FRAWLEY: I am not anxious to explore that too far. We are sent out to explore this problem and if it is as simple as that, which it very well might be, I don't know why we need such a gigantic set-up.

BY COMMISSIONER McLaurin: It is always a shame to make a simple problem difficult.

BY MR. FRAWLEY: You were talking on another page about the thin seams at Joggins?

A Yes sir.

Q You said they were being economically worked, most economically?

A I think that is right for individual cases. I would rather perhaps put it that the field itself has given us a greater production per man day than the other fields are giving us.

Q Have you heard about the bogey of the thin seam in the Glace Bay area?

A The bogey?

Q Yes. The Glace Bay miners are psychologically not disposed to work thin seams?

A There are certainly very few thin seams being worked in the Glace Bay area.

Q I am told there are thin seams there that could be worked but the Glace Bay miner doesn't like to go to the face on a thin seam?

A I don't know about that.

Q You told us on page 21 that the greatest reserves are the submarine reserves in the Cape Breton area?

A Yes sir.

Q Now you think that you can increase this market, and where is the table that tells us about that?

A Page 50.



Q Now that to me is the most interesting page in the whole book. How are you going to get that 1 3/4 million tons into Quebec and Ontario over and above what you put in there in 1936 to 1939?

A Well, Ontario probably can use some of it, probably have to use most of it.

Q You can get it in of course, but can you get it in without an increase in the amount of freight subventions? Have you considered that?

A No sir, I have not looked at those factors. All I have seen is the table in the MacLanders brief. I have not looked into those things at all.

Q I don't know what conclusion Mr. MacLanders came to but it runs in my mind that you would have to not only continue the subvention but increase it?

BY COMMISSIONER McLAURIN: To my recollection Mr. MacLanders left it pretty much as being satisfied.

BY THE CHAIRMAN: With the costs as they were in 1939 I think he said he could develop a market there for another million or million and a half.

BY MR. FRAWLEY: And if those costs rise you will need more subventions? With a graph showing a constantly rising cost then doesn't the subvention graph go along with it? Now you use the expression on page 27: "In Nova Scotia the coal industry has developed to what may be termed a stabilized productive capacity." What do you mean by that?

A Well, that is what I tried to enlarge on with this table on page 35 (Table V). Well, perhaps if you take the table on page 34 (Table IV) which shows the production of all the mines through the 10-year period, if you look at the tonnages at the bottom it is as clear as anything--7,000,000; 6,500,000; 7,100,000; 6,300,000; 6,750,000; 7,735,000; 7,200,000; 7,200,000; 6,000,000. One year, 1944, is down. But take the 4-year prewar period -- 7, 6, 7, 6 -- it practically established itself there.





Q Where are you going to get the extra  $2\frac{1}{2}$  million tons of coal?

A Well, that production was given to us on the basis of 520, I think it is, tons per man-year. Well, we say that the production capacity under optimum conditions is 584 tons per man-year.

Q It has been done, that per man-year production?

A Has been done, and I say, keep that up and you have 60 tons per man per year right there, which for 15,500 men runs you up pretty well to what you need.

Q I won't pursue that matter of keeping the miners employed any further. On page 29 you say: "The Province can control the rate of depletion of individual reserves for community existence." Just what do you mean by that?

A I mean by that that we can control, through our right to inspect the programme for development and our approval of the method that is going to be adopted for each new development, each new mine; we can watch the scale of it and where it is going, what it is going to leave for the future, generally.

Q If the operator said, "I am concerned not with this community's existence but with getting out a greater volume of coal more economically by doing something else," would you not desire to impose your will?

A Oh well, it depends upon how far in the past we have gone to control all development. Each individual case has to be considered on its merits.

Q Well, take No. 11, for instance. Supposing you agreed with the company that from the standpoint of costs and mineability of the resources that it would be better to virtually abandon that mine, you wouldn't want to ---

BY THE CHAIRMAN: Isn't there another question involved in your question too as to supposing?

BY MR. FRAWLEY: That there was not any more coal there? Of course we have heard there is some coal there, thin seam, low coal as it is called in Cape Breton, but putting that aside,





supposing the company came and said, "We think we have to abandon No. 11."

A They have been saying that to us, sir, for the last five years and haven't closed it yet.

Q I wonder if the fact that the community want to stay there is deterring the company from making a bald decision and saying, "No. 11 is closed."

A There is a tonnage of coal there that should be looked at further. It is available perhaps from 24, perhaps better from 11. There is a tonnage of coal below No. 11 which should be looked at some time.

Q You have put those matters to the Company?

A We have discussed them.

Q Do they see eye to eye with you?

A I won't say they see eye to eye with us. The community of No. 11 happens to be a part of the greater community of Glace Bay.

Q I think so.

A Yes, it is Passchandaele. Some miners from Passchandaele go over to No. 1B to work.

12.00 NOON - COMMISSION ADJOURNED

FRIDAY AFTERNOON

The Commission reconvened at the Court House at 2.00 P.M.

... BY MR. FRAWLEY: Mr. Chairman, during the adjournment I was asked to bring to the attention of the Commission that the Canadian Legion at Inverness want to make a submission on behalf of the citizens of the Town and County of Inverness and Mr. MacNeil is here to make that submission. Now I hadn't spoken to the Commission about it but probably when we finish with Dr. Cameron and some other witnesses, because there will hardly be any other place in Nova Scotia for Mr. MacNeil to present it --

BY THE CHAIRMAN: Certainly.



DR. A. E. CAMERON. Examination continued by Mr. Frawley.

Q Now, Dr. Cameron, there are two or three other things I want to ask you to elaborate upon in your brief, but just before we proceed I want to make clear, following the remarks of Mr. Commissioner McLaurin this morning, you understand that the coal industry in Canada does enjoy the customary tariff protection which is enjoyed by other industry?

A It enjoys a slight tariff protection, sir. I don't think in comparison with other industries ---

Q You may be quite right about that but the facts are that the duty is 75 cents per net ton on bituminous coal and 3% ordinarily excise tax. That 3% has been now eliminated and there has been substituted for it a tax of 10% on the value of the coal at the mine, converted into Canadian funds.

BY COMMISSIONER McLAURIN: That is a Foreign Exchange Control tax. That is for purposes other than tariff, for purposes of controlling our economy.

BY MR. FRAWLEY: That may be, but if so there is no excise tax because it disappeared and has been replaced by 10% of the value of coal at the mine, but there is also 22 cents per net ton equalization charge on rail freight, which Mr. MacLanders told us about, and he says on page 39 of Exhibit 6: "The equalization charge on rail freight is a uniform charge made by the railways of the United States on all exports to Canada moving all rail from mines to destination in lieu of the exchange of 11%, it really is in effect the exchange on the freight, but it is described as an equalization charge." That is 22 cents per net ton but in addition to that there is a tax of 10% on the value of the coal at the mine converted into Canadian funds, and what I say, it is taking the place of the excise tax; the 3% excise tax is not collected at the same time as the 10% tax that I just told you about, but over and above that there is 22 cents per net ton.

A It is on the rail freight. It is not on the value of the coal.





Q What I was thinking about was the ordinary peacetime, and let us assume that the situation will come back to 3% excise and 75 cents a ton. Now that being so you say that is just a slight protection, comparable to what?

A I am certainly not an expert, or even familiar with the general customs tariffs for all goods entering Canada, and if I make a statement that I consider the tariffs that have been put on it are not in proportion to the tariffs on other goods, that is from the point of view of protecting the industry, it is just my personal impression. I believe there is less protection to the coal industry through this than there would be to the automobile industry or to the refrigeration industry--another of the manufactured, fabricated goods.

Q That is dealing with the question of duty and excise alone?

A Duty and excise alone.

BY COMMISSIONER McLAURIN: What you would say is the tax amounted to nothing more than a tariff for revenue only, such as Alexander Galt and Sir Francis Hinkson produced prior to the National Policy of 1879? What you say is that they are there for securing a revenue and the freight subvention is there for the purpose of protection?

BY THE CHAIRMAN: I don't think Dr. Cameron is the man to discuss that. We will have to take that up with the Finance Department or Customs Department in Ottawa.

BY COMMISSIONER McLAURIN: No, the Canadian Manufacturers' Association.

BY MR. FRAWLEY: Now I have a note to bring to your attention what you say on page 54.

BY THE CHAIRMAN: I don't mean to say you are not right, Dr. Cameron. You are absolutely right in your statements, but so far as going into it any further we should get our information from the departments.

BY MR. FRAWLEY: You say that Nova Scotia "believes that the national interest as well as the provincial interest requires



direct financial assistance to overcome this handicap". That is the handicap of high cost? And then you say that "Railway subventions must be continued and possibly direct subsidies must be paid to the mining operations." Now probably as much was said about that as could be said this morning. It is your view that there must be not only assistance to get this coal to market but if necessary federal aid must be extended directly to the operator at the mine to help him get the coal out?

A Presupposing that coal in Canada generally, Nova Scotia coal particularly, is a national asset that is of vital importance to the national interest, then these things will have to be done.

Q Why do you say that Nova Scotia coal is particularly a national asset? There is a lot of coal in Alberta that you will also agree is a national asset?

A Yes sir, and it is some hundreds of miles further than the Nova Scotia coal is from the central markets.

Q And perhaps for that reason it should get a greater measure of help?

A It needs only that help that would put it in the market to compete.

Q If this is going to be solved on a purely national basis then geography should be ---

A That is what we tried to say in our first chapter.

Q You think that because that Alberta coal is separated by so many broad acres, you think it should get even a larger measure of help to put it into that Central Canada market?

A I think that both should be considered in the Central Canada market.

Q The St. Lawrence river overcomes the law of geography for you people?

A Possibly.

Q It puts Cape Breton right into Montreal without any help?



As I said before today you are really hoping, and page 50, as I say the important page, page 50 says you want to get 1 3/4 million tons more of your coal into Ontario and Quebec?

A That is my belief, sir, yes.

Q Coming back for a moment to the Alberta coal, Alberta coal thinks it should have a share of that same Quebec and Ontario market. In your calculations have you allowed for some Alberta coal going into Quebec and Ontario?

A The Ontario and Quebec market is a great deal larger than what we are asking for. We are not asking for the total of the Ontario market, or anywhere near it.

Q That would be a difficult proposition to maintain, would it not, because you would have to completely exclude the American coal to do that, and you have, you say, in the million and three-quarters you have asked for you have allowed for some Alberta coal going down there?

A No, the Alberta coal I think can look after itself as far as the Ontario market is concerned. There is still plenty of room in the Ontario market for Alberta coal as well as Nova Scotia.

BY THE CHAIRMAN: I don't want to have any misunderstanding about that, that we are able to supply at any time within a thousand years the whole of the Canadian market with Alberta and Nova Scotia coal combined.

BY COMMISSIONER McLAURIN: You might be able to do it if you include Alberta.

BY MR. FRAWLEY: I think the Chairman meant it would take some time to get the coal out.

BY THE CHAIRMAN: That has always been a grievance against governments, that we are not supplying the whole market. We cannot do it.

BY MR. FRAWLEY: The thing is we can't do it soon. The coal is there but it would take time.

BY COMMISSIONER McLAURIN: We don't know what Alberta may say about this.





BY THE CHAIRMAN: There is another phase of it also that you should take into consideration: I don't think the time will ever come when we will be able to get an output, combined output of the collieries of all the coal resources of Canada, to supply the Canadian market.

BY MR. FRAWLEY: If I may say so, that is what you said a moment ago. That is a bald proposition. All I say about that is you must define what you mean by ---

BY THE CHAIRMAN: The only thing is, I would like to bring that to the attention of the public as my opinion, because it will do away with a lot of old grievances and heartbreaks against governments and operators.

BY MR. FRAWLEY: I would only want to put one proviso, the people of Canada may as well know as far as resources are concerned we have the resources to supply it.

BY THE CHAIRMAN: I am talking about the necessities. What kind of coal have you got out there? Have you got hard coal?

BY COMMISSIONER McLAURIN: We have got coal that cokes.

BY THE CHAIRMAN: For example, the necessities of Canada in coal includes anthracite coal, doesn't it?

BY MR. FRAWLEY: I would say a question mark to that. That depends on what this Bituminous Institute in the United States is doing. They are doing wonderful things to substitute. There are installations in Ontario today that have used anthracite coal for 50 years and that are now very conveniently burning prepared sizes of bituminous.

BY THE CHAIRMAN: Then I would say that the work of this Commission is all over now, if you are satisfied as to that and will sign a report.

BY MR. FRAWLEY: Satisfied as to what?

BY THE CHAIRMAN: That we can produce sufficient coal for Canadian necessities.

BY MR. FRAWLEY: Oh no. You say "can produce" and you have then interjected economic necessities into it. Now, Dr.



Cameron, on page 75 you said something I think you should expand upon. You say: that a complete reconsideration of the LaSalle problem is justified today. What do you mean by that?

A I believe, sir, that the LaSalle coke plant can take more Nova Scotia coal than the 33 1/3%. I believe that there have been advances in the science and technique of coking and in the burning of coke. The domestic householder knows more about the burning of coke than he did in 1932 and that the whole programme of utilizing Nova Scotia coal for domestic coke production at LaSalle and other plants can very well be reconsidered in the light of present-day techniques.

Q There is a coke made in Sydney and used domestically, is there not?

A Yes.

Q If that coke could be got into the Montreal area is it just as good as the coke that LaSalle is putting out now?

A I can't compare the two cokes; I don't know. All I know is that the coke produced in Nova Scotia is an entirely satisfactory domestic fuel because I have used it myself for years.

Q Your answer is based on the view that the coke made at Sydney is a satisfactory domestic fuel?

A Yes.

Q And that is using all Sydney coal?

A Yes.

Q Then the situation that this LaSalle Company has to go into the American fields for 67% of its requirements, I agree with you that that is something that certainly should be reconsidered, but frankly I was told that the Sydney coke is not as good a coke as the LaSalle coke for domestic purposes.

BY THE CHAIRMAN: Of course he says he doesn't know. He says the coke he gets from the Dominion Steel is a good domestic coke.

BY MR. FRAWLEY: The reason I am pursuing this is that it is





very interesting to know he thinks it should be reconsidered.

BY THE CHAIRMAN: Don't make any doubt about it. It is going to be reconsidered by this Commission.

BY MR. FRAWLEY: What would be the nature of the reconsideration you think this LaSalle operation warrants?

A I would like to think that over a little while rather than try to give you a spot decision on that.

Q All right. I would like to have your considered opinion on that because I don't think it is any secret to say that it has been upsetting the Chairman to think that only 33% of Sydney coal is going into that operation.

BY THE CHAIRMAN: You know of course too, I think I brought to your attention some evidence that was brought before the Rehabilitation Committee of the House of Commons last year.

BY MR. FRAWLEY: Yes, I have those observations. I particularly made a note of them. On page 89 you speak about the development of fuels and also the development of new appliances. Now better processing and preparation, I think that is a very important thing myself, but what is troubling me is which is the more important, the proper preparation of the fuels or the change-over to more suitable appliances to burn this high ash and some sulphur content coal?

A Considering the fact that the consumer, that is the owner of the appliances, are householders, they are greatly dispersed and each have their own personal ideas perhaps; they have certainly expended their own money on their own little plants; it is the responsibility of the producer to give them the coal that best suits their needs, and the major problem would be the preparation of coals to meet the needs of the market rather than ask everybody to change their equipment.

Q You think then that coal preparation will suffice without any change in appliances?

A Oh no, I won't go that far. Both are desirable.



Q But you don't think there needs to be any complete change-over to really put this high ash coal into the market properly?

A No. The high ash coal should be lowered in ash content for the good of the consumer, then the sizing preparation is the second step.

Q But you can reduce the ash content only to a degree. Isn't the inherent ash still a problem?

A You cannot get rid of it entirely. Chemically you can, economically you can't.

Q But if you didn't do that you still would have considerable ash content in the coal, and that can only be handled in the proper kind of equipment?

A No, it can be handled in any kind of equipment, but each kind of equipment would probably be designed for a certain kind of material.

Q In other words you say some of the changes have to come about by changing equipment and some of it by better preparation of the coal?

A I think so.

Q The degree is a rather difficult thing to put your finger on?

A I think so.

Q Now I want to ask you something that you may not be particularly expert upon, but presenting the brief of the Province of Nova Scotia I want to put this on the record. In the Glace Bay and Waterford area the production on Monday, the 22nd of January, was 11,118 tons; on Tuesday the 23rd, 11,467 tons; on Wednesday the 24th, 12,386 tons; on Thursday the 25th, 12,859 tons; on Friday the 26th, 11,588 tons, and on Saturday the 27th of January, 4,404 tons. That is the story that you know about in general, of course, and maybe in particular too, do you?

A Well, those figures normally come into our Department.

Q And is that pretty well what happens every week?





A I am under the impression that Saturday is a part day only, is it not?

Q In the Glace Bay and Waterford areas, Mr. Casey?

MR. THOMAS CASEY: That Saturday is a comparatively short day. They don't work after noon on Saturday.

BY MR. FRAWLEY: Every Saturday I find that the coal production is short and I am told that that is because the men stay away from the mines on Saturday. Now if that is all wrong ---

MR. CASEY: Saturday I have always considered is a half-day, a single shift.

Q That may be the explanation of it. There is just as much coal produced per man and per hour?

MR. CASEY: Not quite. The others will average around 12,000 tons and that is 4,000. It is not quite the whole story. That 4,000 tons is about 60% of a single shift operation.

Q And what is the 11,800 tons?

A That is about 60% of a double shift operation.

Q Well now, is the mine not open as much on Saturday as it is on Friday and Thursday?

A It is not hoisting coal as much on Saturday as it is on Friday and Thursday.

Q It is not hoisting as much coal?

A Not hoisting as long hours. The hoisting crew is there.

Q Is it there just as long on Saturday as on Thursday and Friday?

A The hoisting crew is there just as long.

Q The hoisting crew is there?

A Certainly, the hoisting crew is there three shifts a day, but whether it is hoisting coal or not is another matter.

Q I will put it to you very frankly: I am told that the producers of the coal are not there on Saturday like they are on Thursday and Friday.

A They are there, Mr. Frawley, but not as long. They are there in the morning till probably noon-time, then they are gone away.





Q I don't know; perhaps there is nothing in this at all, because if that is the explanation, that Saturday is a short day ---?

A It is shorter than the other days, but you have less men as well.

DR. CAMERON: The normal number of men is less on Saturdays than on any other day.

Q What is the difference between Saturday and Friday, if there were the same number of men on Thursday and Friday?

MR. CASEY: Are you talking about Thursday morning, or morning, afternoon and night shifts all combined? 24 hours or 8?

Q I am talking about all the shifts in the mine. I am talking about the normal operation, and I want to know to what extent Saturday varies from that?

BY THE CHAIRMAN: There is only one shift on Saturday as against three on other days.

Q Then that is the explanation for all this?

DR. CAMERON: Not necessarily. The back shift--well, I think I would rather have Mr. Casey answer that if I may.

Q There is no use in my worrying about short production on Saturday if my bases are all wrong.

BY COMMISSIONER McLAURIN: Don't you think we might delay this?

BY THE CHAIRMAN: You will have to take into consideration too the conditions on days when they have the three shifts and the men coming out those days.

BY MR. FRAWLEY: Now, Dr. Cameron, there may be just a little inconsistency in some of this submission and you may want to clear it up. If you look at page 55 you will see there that you advocate the shipping of the coal unprocessed and that the processing be done at the point where it goes into the market?

A Yes sir.

Q Then on page 90 you say, speaking of the coal, "These factors emphasize the need of both close sizing and cleaning of coals before shipment to the markets."



A That's right, sir.

Q Now do you want to say anything about that?

A If you are going to ship to Ontario and Quebec you can either clean your coals and ship each size in pockets by itself, which would be relatively small sections of a ship, or you can ship them in bulk and then do your cleaning and processing at the point of delivery. Now I would say that it would be better, except for that amount of fines that are needed for local use, the coarse coal can be shipped, otherwise than screened unprocessed, can be shipped in bulk to Montreal or Quebec and before going on to the domestic market, for example, it should be rescreened and resized to the sizes that are needed in that district.

Q The only thing I was worried about, you might have a duplication there. You wouldn't want to have complete preparation plants at the pithead?

A I will say a not complete preparation plant at the pithead but complete preparation plants as near to the market as possible.

Q That is your considered view?

A When you get a long haul. Now then the local market I would say, using the Joggins field as an example again, it would certainly be desirable to have the Joggins field considered as a unit and let its coal go within the Maritimes to where it can go in the processed form, but if you are going to send Cape Breton coal to Windmill Point in Montreal, if you are not going to wash it--and it hardly needs washing for domestic purposes; there is normally less than 8% ash--it would be better to ship all the coal, with the exception of the screenings you want to take out for the coke ovens, it would be better to ship it in bulk because it is going to be broken down in the handling and you will have to rescreen it in any event when you get to Windmill Point.

Q Then you favor it being done at Windmill Point?





A In part; the greater part. If you are going to coke it certainly you should coke it at Montreal, not coke it at Sydney and then ship cokes there.

Q And for the coal coming into the Maritime market you suggest there should be at Joggins?

A Certain central points where it could be done.

Q Would these be community plants?

A Built to handle the product of all the mines. If there were a large group of producers the one would probably handle them all. It would be pretty expensive but it could be assisted. It could be paid out of the products of the industry; the first cost might have to be assisted in some way.

EXAMINED By Commissioner Morrison.

Q Turn to page 9. You refer to special freight rates. Has the Government of Nova Scotia interested itself in the question of freight rates generally and Maritime rates in particular?

A No sir, I can't say that I have looked into this in detail as far as coal is concerned.

BY THE CHAIRMAN: He is asking you, has the Government interested itself?

A Well, the problem was discussed before the Rowell-Sirois commission, I believe.

BY COMMISSIONER MORRISON: I hope the report of this Commission will be acted upon quicker than that one was. Has the Government of Nova Scotia made application to the Board of Railway Commissioners, have they waged a fight or are they perfectly satisfied with freight rates as they are in this area?

BY THE CHAIRMAN: I think the man who is doing that for the three provinces is Mr. Rand Matheson.

BY COMMISSIONER MORRISON: I am not talking about the three provinces; I am talking about Nova Scotia

A As far as I know I think the Government of Nova Scotia depends



upon Mr. Matheson for that.

Q What has been happening? We haven't seen very much of any particular case where you have made very much noise about freight rates. It would be fair to say that the question has been fairly dormant for some time?

BY MR. FRAWLEY: Well, they got the Maritime Freight Rates passed, which is more than anybody in Alberta ever got.

BY COMMISSIONER MORRISON: You don't care to answer the question?

A I am afraid I can't answer it.

Q While we were in Sydney a few days ago somebody came before the Commission and spoke about bootleg coal. What do you know about that subject?

A Well, we hear a lot about bootleg coal. There is legislation which I think Mr. Wall could explain to you better than I can with respect to the responsibilities of the leaseholders and of the Province with regard to the bootlegging of coal.

BY MR. FRAWLEY: There is an obvious piece of legislation called the Criminal Code of Canada.

BY COMMISSIONER MORRISON: I was going to come to another piece of legislation. What is your Department doing, or are you aware that such a thing is carried on in the Province of Nova Scotia today?

A I am afraid we are very much aware, sir.

Q And what are you doing to correct it?

A Within the limits of our Act we try to do everything we can.

Q What do you mean by that?

A I would have to have the Coal Mines Regulation Act.

Q Are you suggesting that your Act limits you from doing all that you would want to do?

BY THE CHAIRMAN: It helps to get convictions more easily than under the Criminal Code of Canada.

DR. CAMERON: The Mounted Police assist us in prosecutions. The legislation is Section 10, sub-section 3 of the Mines Act.  
(Reads sub-section).

BY COMMISSIONER MORRISON: That makes beautiful reading, but





what is the Government of the Province of Nova Scotia doing to stop this practice, if it exists?

A I think, Mr. Wall, you are more conversant with what our Department does with regard to action? Our inspectors consistently check up on this, sir.

MR. WALL: This bootlegging, as you call it, various attempts have been made to correct the situation. Personally I have pointed out many times to the lessees of coal that they are clothed with the obligation of protecting the rights of the Province, the reversionary rights, where we have given a lease; that it is tantamount to my hiring from some person who has a whole lot of trucks and sleds and horses for the lumbering industry and I want to go into the cutting of lumber and I rent from him this equipment. Now I think I would be clothed with the obligation of protecting that property while it is in my custody. In other words, if the man comes along in two or three years time and finds that his sleds and trucks are all broken up, the wheels are stoleb off them, the harness is cut up and everything is practically destroyed, he would have a serious grievance against me, and that the lessee should regard his obligation the same way. Now the Coal Company rather takes the situation opposite to that, that the Province having given them a lease ought to protect them in the enjoyment of it. There is ample legislation for the protection of these rights. Some few years ago this Section 10 was stiffened up by the addition of some other sub-sections, one of which says any person found guilty on summary conviction of mining without a licence or lease may in addition to the penalty provided in respect thereto be ordered to fill up at his own expense any pit or slope made for the purpose of such mining.

BY COMMISSIONER MORRISON: You are not seriously suggesting that the enforcement of that statute should be borne by some corporation that holds a lease from you?





MR. WALL: We have told the lesscos that if they find that illegal mining is going on and if they cannot catch the culprit in the perpetration of the act that they can communicate with the inspector and show him--they at least know that illegal mining is going on on their property--show him that and he will take up the matter with the Mounted Police, and that they will take over after that.

Q At that point, what is the attitude of the corporation then?

A To be candid and fair to the Corporation, I think they have done a considerable to stop that, but the magistrates seem to--well, they impose a very slight fine. The fine is a fine not exceeding \$25.00.

BY THE CHAIRMAN: That is enough on that, Mr. Wall. Are you complaining about the decisions of the magistrates? What right have you got to complain about the decisions of the magistrates?

A I think so. What's that?

Q What right have you got to complain, unless you appealed their decisions?

A I don't see perhaps that we have.

Q So far as magistrates are concerned I will enlighten you on this, so far as actions against bootleggers are concerned. In the old days, I suppose through the combined efforts of the Coal Company and yourselves, you brought action under the Criminal Code for theft, and you weren't getting anywhere.

A That must have been before my day.

Q Oh no, you are as old as I am. I ~~intended~~ tried four of them in Sydney myself.

A That must have been before I joined the Department, I mean.

Q Oh no, within 12 years four of those cases were tried before myself, and the jury refused to convict, and then somebody in the Mines Department, or perhaps in the Attorney-General's Department, said, "We will get an easier way. We will get



somebody who will convict those chaps," and they started to get the legislation you have now.

MR. WALL: Well, the convictions are very far short of meeting the situation. If John Smith is convicted today of illegal mining and he is fined \$2 and costs, and he is convicted in a fortnight's time again and he is fined \$3 and costs, and in another fortnight he is again fined that, you are not getting very far.

BY THE CHAIRMAN: No, you are not, but you can change your legislation very quickly.

BY COMMISSIONER MORRISON: What action is the Government of Nova Scotia taking to protect their own rights? Now we heard from you about the duty of the Corporation holding a lease, and paying royalties to you, to protect the property. What have you done in that direction to get your revenue from these people? If it is proven that John Smith was fined \$2 and costs, regardless of the decision of the Court or your opinion concerning it, it at least was established that he was engaged in illegal mining, what action if any did the Provincial Government take then to recover monies lawfully due to them as royalties?

A They are not getting any royalty on illegally mined coal.

Q No, but you have just told us that there were prosecutions?

A Yes.

Q And that there were convictions?

A Many of them.

Q Well now, what steps do the Government take then to collect royalty on that coal that was illegally mined?

A I don't think they have taken any.

BY THE CHAIRMAN: They couldn't collect royalties anyhow.

A No, they only can collect royalties from lessees.

BY COMMISSIONER MORRISON: I don't care who they collect it from but I am thinking of the taxpayers of this Province. After all, you are collecting a royalty in one mine and not in another.





A Well, there seems to be, in the places where these illegal operations are being carried on, a public feeling against collection of this. For instance, I will take a specific case. The Municipal Clerk of the Municipality of Cape Breton wrote to me saying that the Municipal Council in public session had passed a resolution asking the Government to cancel the Bootleg Mines Act. Well, I wrote him back and said, "There is no Bootleg Mines Act. In the Mines Act of Nova Scotia sections have been put in aimed at preventing bootleg mining. Now what was your council aiming at? Do they want these taken out for the encouragement of bootleg mining? Would you send me a copy of the resolution?"

BY COMMISSIONER MORRISON: There might have been an election in the offing.

A I don't know. I don't take any part in elections. But there is a strong public feeling down there, I am convinced, against the enforcement of these provisions.

BY THE CHAIRMAN: Something like the Liquor Act?

A Yes.

BY THE CHAIRMAN: In the old days, and I think, Mr. Wall, you should perhaps tell too under what conditions they started. It was in the depression days when people didn't have money enough to buy coal and they got together and appointed somebody to go out and open a bootleg pit to supply them.

A Yes, I think so.

BY COMMISSIONER MORRISON: You don't think that is a good enough reason for opening them up?

BY THE CHAIRMAN: I am not giving it as a reason at all. I am giving it as why they were started first.

BY COMMISSIONER MORRISON: I am thinking of the safety of those men who go into these mines, and I was appalled when I heard that that was allowed to exist in the Province of Nova Scotia, a Province that is so far advanced in every other respect.

MR. WALL: Well, I have outlined the situation to you.



BY THE CHAIRMAN: Do you think there is no duty on the part of those who go in to look after their own safety?

MR. WALL: Oh yes.

BY COMMISSIONER MORRISON: I am informed that some 200 tons of bootleg coal a day is being sold on the market. That has been given to us in evidence.

MR. WALL: I have proposed an amendment to Section 10 of the Act that would enable the lessee to send in, when authorized by the inspector, to send in on the land persons searching for illegal mines, and if they find them that they are there and then authorized to fill them up or blow them out, and if any-one is subsequently convicted that he has to pay the costs.

BY COMMISSIONER MORRISON: Couldn't the trouble that you are talking of now be corrected by the Legislative Assembly passing an amendment to your Act raising the minimum fine that these people could be fined?

A Yes, that I have talked of, raising the minimum fine say not less than \$25 nor more than \$50.

BY COMMISSIONER MORRISON: Make it \$100 while you are at it.

BY THE CHAIRMAN: I think in fairness to everybody, when the question was asked what was done, you know that many of those mines were closed and blown up and made impossible of access, either by the Government or the coal companies, I don't know which.

A Yes.

HON. L. D. CURRIE: I don't want to interpose in this discussion but I don't want the impression to be given that the Department, either the Attorney-General's Department or the Department of Mines, has not been active in this matter. It is one of the most difficult enforcement procedures that the Government has to deal with. You have a long historic period of violation of the law. As His Lordship has said, year after year prosecutions were laid by the Attorney-General's Department



against these violators of the Criminal Code. They were brought year after year before the juries of Cape Breton County and they were dismissed. That was the only law that was available ---

BY THE CHAIRMAN: May I interject, one weakness of the cases was in very many cases they could not prove exactly whether they were on leased property or not.

HON. MR. CURRIE: That is very likely true. I am speaking of the general picture.

BY THE CHAIRMAN: I am taking some of the odium away from the juries.





BY HON. L. D. CURRIE - That is the historic background.

Then the legislation was changed and there has been extreme difficulty in having that legislation enforced. But I think there is a much better picture to tell this year than for many years past. I think it can be said that in large part at least that the bootlegging operations in the Glace Bay area have ceased. Our greatest problem is on the North Side, and when you come to the question of raising the fine, that matter has been discussed with me many times by Mr. Wall, but I am not so sure it is a sound principle of law to raise the penalty for a thing of this kind to such a high rate, or to do the things which other arms of the law have done with respect to taking away Habeas Corpus and transferring the burden of proof. I think the punishment should fit the crime. The old Gilbert & Sullivan theory was a pretty good one, and I don't know if, for the sake of stopping a bootleg operation and convicting some poor fellow that has no work and charging him a fine of \$200., I don't think it is worth it.

BY COMMISSIONER MORRISON - You have to be cruel to be kind, sometimes.

BY MR. CURRIE - I doubt if it is wise legislation to raise up fines, because then you start a precedent where you don't know where you are going to end. We have had difficulty with people who own the land, and there are miners in the pits who go down themselves and know these difficulties quite well, that when our officers have gone up and said they were going to blow up the pit, he has gone to the law to protect himself when he goes into the mine. They are all ramifications that come into the picture. While it is true on the North Side there is a larger bootleg operation than there should be, we are using our best efforts with the Attorney General's Department active in the matter, and we are hoping for a slight change in the law for a marked improvement.

BY COMMISSIONER MORRISON - There should not be any bootlegging.

BY MR. CURRIE - I would like you to be the Attorney General



in this Province, particularly during two years of hard times, and try to stop that, and you would know what you are up against. I have been through it for 20 years.

BY MR. MORRISON - Both for prosecution and defence?

A. Yes, and I know the difficulties, and we are trying to do the best we can.

BY COMMISSIONER MORRISON - To me 200 tons a day production of bootleg coal, without any regulation or inspection going on the market, is a bad picture.

BY COMMISSIONER McLAURIN - Not as bad as Pennsylvania, with eight million tons a year.

BY COMMISSIONER MORRISON - That is right, but it is certainly bad.  
BY MR. FRAWLEY - That fellow should almost have a contract with District 26.

BY MR. DUBINSKY - I am grateful to the Mines Minister that Glace Bay has been exonerated.

BY THE CHAIRMAN - Is it possible Mr. Cameron to make a comparison between coke that is manufactured in Sydney and coke that is manufactured by the LaSalle people, by analysis?  
A. By physical tests and analysis, Sir. Physical tests probably, and the chemical analysis, they can make a comparison, yes sir. But I have not got that.

Q. Where would you suggest that could be done?

A. The Fuel Laboratories in Ottawa.

Q. I wonder if it has ever been done?

A. I think we might find a record of it sir.

Q. Because that is very important you see.

A. I don't know that I have it here.

BY MR. FRAWLEY - They must have made tests.

BY THE CHAIRMAN - They made tests on the coal. Take a piece of coke manufactured in Sydney, and a piece of coke manufactured in LaSalle, and could we get an analysis of that?

BY MR. FRAWLEY - Yes, and they could take it and burn it in furnaces, and so on.

BY MR. CAMERON - In this paper by Gilmore & Strong...





BY THE CHAIRMAN - I am not talking about coals.

A. It is the coking of the coals and products therefrom, and includes comparisons of the Waterford, Nova Scotia coal, and imported coals, on the basis of size of particles and the laboratory tube test results. The coke yields in comparison, 2" screen size regular plant mix 2.5 - 10% Dominion mix 2.9. That is the regular plant mix.

BY COMMISSIONER McLAURIN - What the Chairman is asking, has there been a test of LaSalle?

A. These are the tests of cokes made with Waterford coal and imported coals at the Sydney plant, or at the Ottawa plant.

BY THE CHAIRMAN - Have they made any comparison of the two cokes?

A. Yes sir, these are they. Particle size would be the first thing you have to determine what proportion of sizes you are going to get, of the fine coke and of the coarse coke.

BY THE CHAIRMAN - We have the two varieties of coke. Can you by any analysis compare their worth?

A. Yes sir.

Q. That is not it there?

A. Well the chemical analysis are here.

Q. Of the coke itself?

A. Yes sir.

Q. I don't think it is.

A. Oh yes sir, Table VIII.

BY MR. FRAWLEY - We have this book that Mr. Cameron mentioned, but it has never been put on the record. Do you want it on now?

BY THE CHAIRMAN No. I was just asking Mr. Cameron if he know of any way by which that could be done.

EXAMINATION OF DR. CAMERON BY MR. MATTHEWS

Q. The first question I wish to ask is, in order to safeguard the dealers and consumers of fuel, is it not advisable to have producers submit an analysis on invoice covering each car of coal shipped from the mine?



A. I would think it would be. If it could be done, it should be done. I don't know, each car is a pretty close question I would say. You want the analysis of the fuel that is in the car submitted to you?

Q. Coming from the mine.

A. Yes, it could be done, but it would increase the cost of your coal, because it will cost money to sample it. Such things are done regularly in other industries, you buy a specification, and supply on specification. It can be done if you pay for it.

Q. Do you think that the zoning of fuel would in the long run create a hardship on the dealers and consumers?

A. The zoning I would propose would be worked out in co-operation between the dealers and consumers. It is not an arbitrary zoning that I propose at all.

Q. The last question is, would it be in the interests of the fuel dealers and the consumers alike to have an Inspector of Fuel appointed in this district to act as an impartial party in cases of dispute, as to whether coal shipped by a particular producer is either screened or run-of-mine?

A. Well in the few cases in which that question has come before us we have always been glad to send our Inspector out to the question in dispute. A regular Inspector, I doubt if he would have a full time job. Our Department are glad to co-operate at any time.

Q. Are your Department prepared to do that at any time?

A. We will send an Inspector over to inspect it.

BY MR. WADE - Owing to the fact that the Commission very kindly agreed to take into consideration the possibility of our examining Dr. Cameron at Sydney when the Commission returns, we have decided that we will not cross-question at the present time.

BY COMMISSIONER McLAURIN - You appreciate that you may not have an opportunity to cross-examine at another time; that the Commission is in no way bound?



BY MR. WADE - Yes.

EXM. BY E. M. Macdonald

Q. From some of your remarks yesterday Dr. Cameron, the impression which you left on my mind was that the Provincial Department or Government has not got the right to cancel a lease from one leaseholder for the purpose of transferring it to someone else. Was that the intention of your remark?

A. The Department cannot. I can read Section 47.

Q. I am quite familiar with that, Doctor.

A. You asked me for an interpretation of this clause then?

Q. No, not of that, but I want an explanation from you as to whether you say the Department has the right, or the Government has the right?

A. It is a question for the Governor-in-Council.

Q. That is under the Acts of 1918?

A. Section 47 of the Mines Act.

Q. And also under the Acts of 1918?

BY COMMISSIONER McLAURIN - What is the Chapter of that Section 47?

A. Section 47 of Chapter 4 of the Acts of 1941. That is the last Amendment of the Mines Act.

BY THE CHAIRMAN - Is it the Mines Act, itself?

A. Yes.

BY MR. Macdonald - And that vests the power in the Governor in Council?

A. That is right, Sir.

BY HON. L. D. CURRIE - Mr. Chairman and Members of the Commission: I should like to crave the indulgence of the Commission for a moment. We had in preparation, and we were unable to complete a supplementary brief with respect to a matter which we think is vital to our case. It has to do with the attempt to establish that coal in Canada is a national necessity. Now, as I say, we began that, we thought about it a great deal and began the preparation of it, to include it in this one, and then we decided that for the time being we





would have four or five pages dealing with that matter, with a number of references of various Commissions which have gone into it. Then we decided that it would be better for us to prepare an additional Memorandum. I am sorry it is not here, and if the Commission will grant us permission we will submit it in a very short time.

The reason we think it important is that we take the view that this whole question of coal in Canada rests fundamentally upon the basis of establishment of this industry as a national necessity. That unless we can prove historically and by competent evidence before you, upon which you can reach a finding that coal is a national necessity, then because of our failure in that regard, and I think it is our responsibility, your finding will necessarily be incomplete.

BY COMMISSIONER McLAURIN - You mean the mining of Nova Scotia coal is a national necessity?

BY MR. CURRIE - All coal in Canada. Our argument is not confined alone - we are looking at it from a provincial point of view - but we are endeavoring to establish that coal in Canada is a national necessity no matter where found, and having established that, then we hope that fundamental principle upon which the whole structure rests, and upon which I conceive will be a general function of this Commission, if we establish that to your satisfaction, then all the other things I think can be solved reasonably easily.

There will be differences of procedure and method etc., but if we can establish that fundamental principle, then we will argue that it is the duty of the Government to come to the assistance of that national necessity to whatever extent may be necessary to resuscitate the industry in Nova Scotia, or Alberta, or British Columbia. That is a difficult thing to do. We do not want to have this problem solved upon the basis of a works project. We will argue that it is not a works project in the first instance, and then if you assume that it is, we will say that the Government of Canada, and of the Provinces of Alberta, and Nova Scotia and British Columbia



will have to spend millions of dollars for the immigration funds, and public works funds, and industry funds, and you should first of all give consideration to putting it upon a national basis.

Coal is unique. It began the industrial revolution. It is in a different category altogether from anything else, fish or steel or lumber. The coal provides the motive power for the nation in times of emergency and in times of peace. And therefore we will endeavor to argue that, being a national necessity, the Government of the country should come to the assistance of that national necessity.

BY COMMISSIONER McLAURIN - Certainly it is a national necessity. You speak of it in the sense that it is a national necessity to exploit our own coal resources?

MR. CURRIE - Yes with all its implications.

BY THE CHAIRMAN - We will be glad to have that.

BY MR. FRAWLEY - Will you want an opportunity to present it?

BY MR. CURRIE - It can be filed and discussed later.

BY COMMISSIONER McLAURIN - We might be very happy to have it as we proceed west. No doubt the thing will come up. Certainly it will in Ontario.

BY COMMISSIONER MORRISON - Dr. Cameron, the Commission wants me to express our thanks for the work you have done in preparing this brief and the excellent way you have presented it. It is premature for me to say anything about the matters in the brief, but you can rest assured it will receive our earnest consideration, and we want to again thank you for coming here, and for the excellent manner in which you have presented the case for your Department.

Mr. J. A. McNeil then presented a submission by #7 Branch, Canadian Legion, B.E.S.L., Inverness, on behalf of the citizens of the Town and County of Inverness.





MR. J. A. McNEIL - Examined by Mr. Frawley

Q. You live where?

A. At Inverness.

Q. In Nova Scotia?

A. Yes.

Q. And you are appearing here on behalf of the Canadian Legion at Inverness?

A. Yes.

Q. To make a submission in connection with the coal mining operations in that area?

A. Yes.

Q. Will you proceed then.

MR. McNEIL THEN READ EXHIBIT NO. 47, as follows:

The #7 Inverness Branch of the Canadian Legion, B.E.S.L. on behalf of the citizens of the town of Inverness, wish to present their views on the present condition of the coal mining industry in the Town and County of Inverness, and to offer suggestions which we feel will benefit the industry in the difficult years which lie ahead.

At one time Inverness County had four operating coal fields, Inverness, Port Hood, Mabou and the St. Rose Chimney Corner areas. Today the only field in operation, and that in an extremely limited way, is Inverness. Large deposits of mineable coal exist in the other fields and with the present very serious shortage of coal, it is amazing why no effort is being made to produce coal from these areas.

Coal was first mined by an Incorporated Company, in what is now known as Inverness Town, in the year 1880. The property was later taken over by MacKenzie and Mann, who opened up the No. 1 seam, known as Inverness Imperial coal", earned a splendid reputation in the markets of the Province as an excellent domestic fuel. In 1934, after the Provincial Government took over the operation of the Inverness Coal Mines, it was decided to close down the "Angle Slope", from which the great bulk of the coal was produced. The Angle Deep was, at that time, down to the No. 13 level, and, we believe that one



of the causes actuating the Government in this action was the reduction of overhead cost. It was then decided that coal for many years to come was available on the "West Angle" which could be mined with less cost. The West Angle, however, only operated for a few years when it was abandoned because of a "Creep".

The only coal now being produced by the No. 1 seam is from the upper levels, coal which has been left unmined by previous operators. In a matter of a year or two this coal will be exhausted.

It is generally accepted that the high cost of producing power was a large item in the cost of production of Inverness coal. We recommend the development of the Lake Ainslie Hydro project to replace the steam electric plant now in operation, tho, the cost of generating power should be much less than in the past years. With cheaper power available it is suggested that a shaft be sunk in the Broad Cove area in order to extract coal from the No. 13 level already referred to. Coal of excellent quality, which may be extracted for many years to come, will be made available and will provide much needed employment.

It is also suggested that new seams of coal be opened up at Inverness. There are available for development a 42" seam and what is known as the "Delaney Seam". Both of these seams, from the nature of their structure and the quality of the coal, give great promise of being profitable operations. It is also suggested that the Port Ban seam be thoroughly explored by driving test holes.

BY THE CHAIRMAN - Port Ban, that is further west than Inverness, is it not?

A. Yes.

Q. Further towards Mabou?

A. Yes.

CONTINUES BRIEF

One of the reasons causing the stoppage of work in





No. 4 Mine at Inverness in 1942 was the large amount of clay which impeded profitable coal mining operations. This clay has been tested and is found to be of high potential commercial use. It is suggested that this matter be investigated with a view of supplementing the production of coal with the extraction of this clay for commercial purposes. Other clay deposits in this area have been tested and found suitable for the manufacture of building brick, tile, etc. It is suggested that efforts be made to develop these deposits.

Early in the present century the Port Hood coal mine was flooded due to a fissure developing in the strata which permitted the water from the harbor to enter the mine. After an investigation, held two years ago, Dr. Flynn, of the Nova Scotia Technical College, gave his opinion that this fissure had now sealed up, and although he would not then advise the complete dewatering of the mine, sufficient of the area could be dewatered for the purpose of mining accessible coal; complete dewatering to be undertaken later.

Port Hood has been suffering a coal famine for the past several winters and this condition could be alleviated with small cost.

Many men, former mine workers, from this section, are now in the Armed Services, and if this work was begun now this industry would be able to give them employment when demobilized from the services.

The Mabou Coal Field has two splendid seams, of seven and five feet in height, that could be operated profitably. Shipping facilities could be installed there with little cost and a measure of prosperity be brought to that section of Inverness County.

Although the St. Rose and Chimney Corner areas lie ten and fifteen miles respectively from railway shipping facilities, the coal from these mines could also be shipped by water. In that connection we wish to point out that modern highways and suitable bus service would take care of the





transportation of workers living in one community and working in another, in respect to mine operations in the Port Hood, Mabou, St. Rose and Chimney Corner areas.

Under the operation of the Inverness Mines by MacKenzie & Mann, a coal shipping pier was built at Port Hastings. Here bunker and coal cargoes were loaded on ships to and from the St. Lawrence. It was a valuable market for Inverness coal and nearly 100,000 tons were disposed of in this way in peak years. When the C. N. R. purchased the Inverness Branch Line this pier was disbanded, and it is suggested that it be reconstructed as it is a necessary complement to the revival of the coal industry in the County of Inverness.

It is also suggested that the harbor installations at Inverness be restored in order to provide a means of shipment of vessel coal directly from Inverness. These installations had existed prior to the purchase of the coal area by MacKenzie & Mann but were destroyed. It has been suggested that this was done in order to provide greater freight revenues for their branch railway running from Point Tupper to Inverness.

BY THE CHAIRMAN - They did ship some coal?

A. Yes.

CONTINUES BRIEF

While the following matters may now come within the scope of your enquiry, we feel that they are of sufficient importance to bring to your attention, and we respectfully suggest that efforts be made to further the following developments: -

- |                        |                                  |
|------------------------|----------------------------------|
| (a) Oil in Mabou       | (d) Gypsum, (Cheticamp)          |
| (b) Iron Ore (Glencoe) | (e) Fluorite (East Lake Ainslie) |
| (c) Tungsten (Emerald) | (f) Barite (Scotsville)          |

In closing we wish to point out how absolutely necessary it is that the coal industry of the Town and County of Inverness be rehabilitated and assured a prosperous future. It is the only industry in the town of Inverness, and it is no exaggeration to say that the existence of the whole community



is bound up with the life of this industry. The past years have seen a gradual reduction in population. Not only does the Town of Inverness depend on the industry for its existence, but so do, to a lesser degree, the farming areas immediately adjoining, inasmuch as the Town, for many years, has been the principal market for farm produce.

There is one more viewpoint that we wish to present. The town and county have a splendid record in the number of enlistments in the Armed Services. Besides many workmen have gone to other sections of the Province to engage in essential war work. After the war it is altogether probable that most of these men will return to their homes here, and will expect to secure employment in the coal industry. If the industry is not able to provide employment, there is a grave danger that we may again witness the evils which were so prevalent during the years of depression.

We would add that the problem is not only one of providing productive employment in our County. It is also a question of maintaining a Canadian supply of coal. No one can deny the need of a domestic source of a fuel that is so absolutely essential to life in Canada.

Solely because a Canadian supply of coal is essential to national life we believe that the nation should know the true situation about our industry and be given an opportunity of providing those funds which may be found necessary to develop the great coal resources of our county.

BY MR. FRAWLEY - Thank you very much Mr. McNeil.

BY THE CHAIRMAN - We will say to Mr. McNeil that we will give his brief the very best attention we can.

MR. A. T. O'Leary then took the stand - Exm. by Mr. Frawley.

Q. Mr. O'Leary you appear as representing T. O'Leary & Co. Ltd. Colliery Agents in the city of Halifax?

A. Yes.

Q. And you are here to make some submission to the Commission on something pertaining to the distribution of the coal in this area?





S.

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A. T. O'Leary

A. Yes. Q. And you are presenting your submission in the form of a letter to the Commission, which I will now file as Exhibit No. 48.

A. Yes.

Exhibit No. 48 - Letter to Commission from  
A. T. O'Leary & Co. dated  
Feb. 2, 1945, with sheet of  
imports of coal & coke,  
years 1938-39 attached.

MR. O'LEARY reads Exhibit 48, as follows:

Robert D. Howland, Esq.,  
Secretary,  
Royal Commission on Coal,  
Halifax, N. S.

Dear Sir:

We are importers and distributors of coal and coke from Europe and the United States as well as from Nova Scotia collieries. We also operate a plant which supplies bunker coal to steamers.

We enclose herewith a statement covering the years 1938 and 1939. This sets out quantities, cost to us c.i.f. our dock or on rail our yard, and our reselling price to dealers.

We have no exclusive agreements covering distribution of certain coals, with the exception that we represent exclusively in the Maritime Provinces the firm of T. T. Pascoe Limited of Swansea, exporters of Welsh Anthracite coal.

With regard to the possibility of increased distribution of Nova Scotia coal in this area during post-war years, this might be brought about to a certain extent by sizing, washing and possibly treating with oil some Nova Scotian coals from the higher grade collieries. We understand that the operators have been experimenting for some time along these lines with the result that they have developed a certain type of stove that will consume this coal in such a manner that the gases and sulphur nuisance is reduced to a minimum. We understand they are developing a furnace of a similar type.



It must be borne in mind that sizing and treating of coal is expensive; not only the cost of labour and equipment, but the resultant additional breakage to the coal causing a higher percentage of slack which must be sold at a low price. These additional costs must be absorbed by the consumer, and, the higher the costs, the more vulnerable will be our position with regard to competition from high grade coals imported from other countries.

Yours very truly,

A. T. O'Leary & Co., Ltd.  
(Sgd) A. T. O'Leary  
President.

IMPORTS OF COAL AND COKE - YEARS 1938-39 - SHOWING  
COST C.I.F. CARS AND STEAMER WITH RE-SELLING PRICES.

<u>Type of Fuel</u>	<u>Cost C.I.F. Net tons</u>	<u>Re-selling price</u>
Cape Breton coal	\$5.80 (Bunkers)	\$6.03
" " coke	8.65	9.50
Pictou coal	5.00 (Bunkers)	6.03
British Anthracite coal	8.95	14.00
" Bituminous coal	6.72	8.75
" coke	8.38	11.00
Westphalian Anthracite coal	8.50	14.00
" coke	7.35	9.50
American Anthracite coal	10.14	13.00
" Bituminous coal	6.86 (Bunkers)	8.60
<u>Type of Fuel</u>	<u>Quantities 1938</u>	<u>Quantities 1939</u>
Cape Breton coal	5774 Gross Tons	10784 Gross Tons
" " coke	1012 " "	569 " "
Pictou coal	4040 " "	5756 " "
British Anthracite coal	3898 " "	2400 " "
" Bituminous coal	7472 " "	4414 " "
" coke	Nil	520 " "
Westphalian Anthracite coal	10587 " "	3000 " "
" coke	2398 " "	Nil
American Anthracite coal	729 " "	2928 " "
" Bituminous coal	Nil	2515 " "



BY MR. FR. WLEY - Mr. O'Leary, I was looking this last minute at the statement which you were good enough to file with your letter. I notice that as far as the figures are concerned the business of dealing in British Anthracite coal is much more profitable than the business of dealing in Cape Breton coal. It looks that way anyway.

A. It is very easily explained. The figure on British Anthracite is the coal as it comes alongside in a cargo, and the Nova Scotia is screened. We have to re-screen all the British Anthracite coal.

Q. Your cost for British Anthracite is \$8.95 and your re-selling price is \$14.00. What must be taken up in that spread?

A. The screening of the coal in sizes from egg down, stove, nut, blower, slack, etc.

Q. And what would that screening run?

A. It depends on what kind of cargo you would get. It varies very materially.

Q. Is the figure \$14.00 the average of all of the various sizes?

A. Oh no.

Q. What is it?

A. It includes only when we give prepared sizes, egg, stove and nut.

Q. Then a complete survey would show the re-selling prices of all of the coals which come out of the \$8.95?

A. Certainly. On the surface that is a big spread. It is \$5.05, that includes when you make your fines and the small sizes which must be sold at much less than cost.

Q. Then British coke lays in here to you at \$8.38 and you re-sell that at \$11.00, that is a little better than \$2.50?

A. Yes.

Q. Now then Cape Breton coke lays in at \$8.65, that costs you a little more?

A. Yes.

Q. And you have to sell that at \$9.50?

A. Yes.





Q. Why is that? Do you have to sell the Cape Breton coke for less than the British coke?

A. The same price, is it not.

BY COMMISSIONER McLAURIN - The same price, a different spread.

BY MR. FRAWLEY - It sells for \$11.00 and you buy it for \$8.38, and the Cape Breton sells for \$9.50 and you buy it for \$8.65.

A. It does not sell for the same price. The British coke sells for \$1.50 more approximately.

Q. Why does it sell for that much more?

A. Question of quality.

BY THE CHAIRMAN - Where does the Westphalian come from?

A. Germany.

Q. That is \$9.50, the same as Cape Breton?

A. Yes.

BY MR. FRAWLEY - You sell the Cape Breton coke for \$9.50, the British coke for \$11.00, and the Gorman coke, when available, for \$9.50. Just a brief word as to those differentiations and why they exist.

A. We bought the Gorman coke at such a low price that we could sell it in competition with the Cape Breton coke.

Q. You laid it in at \$7.35?

A. Yes.

Q. Even less than the Cape Breton?

A. Yes.

Q. That actuated you in the price you asked for it?

A. Yes.

Q. How does it compare in quality with the Cape Breton coke?

A. It is as good. Not very much difference.

Q. That is, the Cape Breton coke is as good as it is in the retail market?

A. Yes.

Q. Then the British coke commands a price of \$11.00?

A. Yes.

Q. And that is better quality?

A. Superior type.



Q. In what respect is the Cape Breton coke not as good?

A. The reason is that it is made from a higher type of coal.

Q. Which is?

A. The British coke. It is made from coal from the Northumberland and Durham sections, which is a very high grade.

Q. As to ash and sulphur and things of that kind?

A. Yes.

Q. Is much Cape Breton coke sold in the Halifax area?

A. Yes.

Q. Has it a good reputation?

A. Yes.

Q. It does not cause any interference with the equipment it is used in?

A. No.

Q. Is it used in equipment built originally for American Anthracite?

A. Yes, a lot of it.

Q. Does it perform just as satisfactorily as American anthracite?

A. I would say yes, with this exception, it needs perhaps a little more attention. I am not an expert but my observation is that it may need a little more attention.

Q. And it can be purchased for considerably less, the difference between \$9.50 and \$13.00. Now take the question of the spread of Cape Breton coal that you sell, or take the coke. Apart from the quality and selling price, I would direct your attention to the margin. You bring it in at \$8.65 and sell it for \$9.50?

A. Yes.

Q. You bring in the British coke at \$8.38 and get \$11.00 for it. I suppose the explanation is that you don't think you can get more than \$9.50 for the Cape Breton coke?

A. You have coke brought in in cargo lots that have to be re-screened, and the Cape Breton coke does not.

Q. I am interested as to how you get Westphalian coke in here cheaper than you get the coke in your own Province?





A. It was brought in at depressed shipping rates.

Q. With a Government subsidy possibly?

A. Quite possibly.

Q. That is the German coke?

A. Yes.

Q. But the British coke, which you might say was all legitimate operation, it came over quite regularly, did it not?

A. Oh yes.

Q. That comes in at \$8.38, and you have to pay about twenty cents more for Cape Breton coke?

A. Yes.

Q. What is the explanation of that?

A. Low Ocean Freight Rates, ballast rates possibly. Vessels coming west bound for lumber, grain, apples and fruit, have no cargo and rather than bring their ship across the Ocean and perhaps cause a lot of damage, they will take a bulk cargo, or part bulk, at ballast rates.

Q. Is that something that you would expect (as a person with knowledge of those things) would continue after the war?

A. It is hard to say. With the type of ship now being built it may be possible that there will be salt water ballast tanks that will enable them to get away from those things, where they would not have to load and discharge a cargo.

Q. If that is so the British coke certainly would not be competing in this market the way they have been able to do?

A. Right.

Q. There is a pretty good sale in this area for American anthracite?

A. When Welsh cannot be procured.

Q. For Anthracite, let us say?

A. Yes.

Q. The Welsh is better anthracite than the American, is it?

A. It commands a higher price.

Q. What are your views on the possibility of Sydney bituminous coal after being properly prepared, properly treated and properly fired, displacing anthracite, either Welsh or American,



in this area?

A. If the coal can be burned in equipment such as I referred to in my brief, I think it would practically revolutionize the consumption of that type of coal in this part of the world. It is something that the Mining Companies have been considering to get a type, to get something so that the equipment can handle their coal.

Q. Are you referring to stoker equipment, or furnace equipment?

A. All kinds.

Q. You are referring to all of the new developments in the whole field of combustibles?

A. That will burn any type of Nova Scotia coal.

Q. And you say with that equipment you can look forward to Nova Scotia coal displacing American and importations?

A. Yes.

Q. And until there is that development, do you think Sydney coal will enjoy a very large market here for domestic use?

A. I don't think so in competition with other coals.

Q. Are people prepared to pay somewhat more for <sup>American</sup> anthracite and Welsh coal if they can get it?

A. Substantially more.

Q. They are not very much concerned, I take it, with the fact that the Sydney coal is mined in their own Province? That alone is not much of a factor?

A. Very slim, very slight.

BY MR. FRAWLEY - Thank you Mr. O'Leary, you have been very helpful in what you have had to say.

EXAMINED BY MR. MATTHEWS

Q. I would like to ask you a few questions Mr. O'Leary. In your statement filed you say that the Welsh anthracite coal wholesales to the dealers at \$14.00. Can you explain to the satisfaction of this Commission why there are two or three sets of prices charged for the same article?

A. Are you speaking for the Commission? You want me to explain to the Commission?



S.

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A. T. O'Loary

Q. Yes?

A. Two different prices charged for the same article?

Q. Yes?

A. So far as dealers are concerned?

Q. Yes?

A. Certainly.

Q. Will you explain why?

A. The slight difference in price would be because an old long established dealer taking a large tonnage would secure a slightly better price than a new dealer setting up in competition with our old established customer.

Q. Do you consider \$14.00 on a thirty day basis, as against \$14.50 from a dealer paying cash, is a small thing?

A. Quite, when the small dealer has no overhead like the large dealer has.

Q. You said that 50¢ was a small difference. I want you to answer whether you regard 50¢ a ton to a dealer who has his plant and equipment the same as the others you are selling to at \$14.00, why he should not get it at the same price?

A. I consider it a fair differentiation.

BY MR. FRAWLEY - You say a differentiation as between different classes of customers is very fair? To a man who has an old established business you would sell at \$14.00, and to a new man that just buys now and again you sell at \$14.50. You think that is a proper differentiation?

A. I do.

BY MR. MATTHEWS - I asked why he sold to one dealer at one price and to another dealer at another price.

BY COMMISSIONER McLAURIN - He has answered that.

BY MR. MATTHEWS - The same thing applies to the coke?

A. Everything we sell, yes.

EXAMINED BY COMMISSIONER McLAUNDERS

Q. I was looking at your 1938 statement Mr. O'Loary. You are a big wholesaler of coal in Halifax?

A. Well these are normal years. Of course I have gone back a





couple of years.

Q. 1938 is a good year to go back to?

A. Yes, 1938 and 1939.

Q. Would that pretty well reflect the experience of other dealers in Halifax?

A. No, my position is somewhat peculiar in that I am a distributor. I am a wholesale handler of coal. Our retail business does not amount to a hill of beans.

Q. But you supply the retail dealer?

A. Yes, and bunker.

Q. And to that extent your statement reflects the types of coal that are coming in to the market here?

A. Yes.

Q. I added up the Nova Scotia coal in 1938, not coke, and if my arithmetic is right, the Cape Breton coal and the Pictou coal comes to 10,826 tons, whereas the British anthracite and bituminous comes to 11,370 tons.

A. Right.

Q. It therefore follows that in this market foreign coals get a better reception than do the Nova Scotia domestic coals?

A. I would not say that. You will find over the average that British coals certainly don't fare as well as the Nova Scotia coals.

Q. They did in 1938?

A. They did in my case, but there are plenty of dealers that didn't import British coal at all.

Q. So your picture does not truly reflect the domestic picture?

A. No, not at all, and you have the whole of Nova Scotia to contend with, and this is just Halifax. There are lots of places where foreign coal does not come in at all.

Q. But this does not necessarily reflect even the Halifax picture?

A. No.

Q. But it does actually and factually give the 1938 experience of yourself?



S.

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A. T. O'Leary

A. Right.

J. N. Foster

Q. As the largest importer?

A. Not the largest, but as a substantial importer.

BY MR. FRAWLEY - Thanks, Mr. O'Leary.

J. N. FOSTER - EXAMINED BY MR. FRAWLEY

Q. Mr. Foster, you are the Manager at Halifax for the S. Cunard & Co. Ltd.?

A. Yes sir.

Q. And you were good enough to come at my request to tell the Commission something about the distribution of coal in Halifax as far as you know it?

A. Yes sir.

Q. Will you just put what you have to say on the record then.

EXHIBIT NO. 49 - Brief submitted by S. Cunard & Co. Ltd.  
77-79 Upper Water St., Halifax.

MR. FOSTER THEN read Exhibit No. 49, as follows:

The following Brief is respectfully submitted by S. Cunard & Co. Ltd., whose head office is 77-79 Upper Water Street, Halifax, Nova Scotia, with their Branch Offices conveniently located at:

79 Upper Water St., Halifax, N. S.  
33 Lower Water St., Halifax, N. S.  
283 West Young St., Halifax, N. S.  
42 Commercial St., Dartmouth, N. S.

This business was incorporated in 1919 to take over the business originally founded in 1825 by the late Sir Samuel Cunard, to supply bunkers for the Cunard Line of Steamers. In 1835 the business was sold to local interests (for the purpose of carrying on a retail coal business) who through family connections controlled the business until 1919, when, as stated above, the business was sold and a Limited Company was formed.

S. Cunard & Company, Limited, carry on a wholesale, retail and bunkering business in all kinds of fuel, while a large share of our business is the sale of fuel oil and stove oil for domestic use, and diesel oil for fishing vessels.





In connection with the coal and oil business, we handle coal and oil burning equipment, such as coal stokers; oil burners and oil units. We have the honor to exclusively represent the following firms in Nova Scotia and Prince Edward Island:

British Anthracite Sales Ltd., Swansea, Wales.  
Best quality Welsh anthracite.

The Maris Export & Trading Company, Glasgow, Scotland.  
Genuine Scotch Anthracite.

Priestman's Collieries Limited, Newcastle-on-Tyne, England.  
Priestman's coke.

The Philadelphia & Reading Coal & Iron Co., Philadelphia, Pa.  
Famous Reading Anthracite.

We also represent in the Maritime Provinces the following firms:

The Yorkshire D.C.A. Collieries, Hull, England.  
Yorkshire trebles and hards.

BY THE CHAIRMAN - What is trebles?

A. A medium sized 3" screened coal.

CONTINUES BRIEF

Inverness Coal Mines, Inverness, N.S. Inverness coal.

The Bras d'Or Coal Co. Ltd., Bras d'Or, N. S.  
Bras d'Or coal. We are exclusive agents for this coal in the Maritime Provinces, with the exception of coal which the mines sell to the railways, and for export.

We own three of the properties we occupy at:

33 Lower Water St., Halifax, N. S.  
77-79 Upper Water St., Halifax, N. S.  
42 Commercial St., Dartmouth, N. S.

While the property at 283 Young Street is on leased land from the Canadian National Railways.

There are some twenty-three coal dealers in the City of Halifax and Dartmouth, and so far as we know any dealer can purchase whatever coal he needs for his business, when it is available.

It is our opinion that the sale of Canadian coal in this territory can be increased if certain changes are made in the preparation of the coal. There is a trend at the present time towards the use of other forms of fuel for heating and cooking, and we believe that this competition can be largely met if the coal industry is prepared to more suitably size the coal,



and also oil treat it.

The Bras d'Or Coal Company, whom we represent, are preparing an especially high grade stoker coal, sizing it to  $\frac{1}{4}$ " x  $\frac{3}{4}$ ", and oil treating it. This coal is proving very satisfactory to stoker users, and is gaining in popularity each winter. This applies equally to their Lump Coal.

Our difficulty during the war years has been to obtain sufficient supplies of coal and coke for our immediate territory, the population of which has more than doubled. Due to the curtailment of shipments from England and Scotland, which threw the burden on American anthracite and Nova Scotia coal and coke, we have found it most difficult to satisfy our customers both Retail and Wholesale.

Without criticism, it is our observation that the above may have been overlooked, which has brought about the present serious shortage.

PURCHASES FISCAL YEAR 1939. S. CUNARD & CO.

	<u>SOFT COAL</u>		
	<u>Rail</u>	<u>Water</u>	<u>Total</u>
Acadia	2032		
American Soft		2963	
Bras d'Or	50571		
Dominion	21231		
Drummond	642		
Yorkshire		8858	
Inverness	64198		
Springhill	5569		
	<u>144243</u>	<u>11821</u>	<u>156064</u>
	<u>COKE</u>		
Dominion coke	5070		
	<u>HARD</u>		
American Hard		11051	
Welsh Hard		40801	
	<u>149313</u>	<u>63673</u>	<u>212986</u>



COST PRICES F.O.B. CARS MINES  
1939

<u>Acadia</u>	<u>Ex Store</u>	<u>Cars</u>	<u>Sydney</u>	<u>Ex Store</u>	<u>Cars</u>
Run/Mine		5.25	Screened	7.25	5.75
Slack	6.45	3.75	Run/Mine	6.75	5.25
Lump	5.95	5.75	Slack	5.25	4.25
Nut	7.20	6.00			
<u>Dominion</u>			<u>Drummond</u>		
Screened	7.25	5.75	#1 & 2 Screened		4.50
Run/Mine	6.75	5.25	#1 & 2 Run/Mine		4.10
Slack	5.25	4.25	#1 Screened		5.00
<u>Springhill</u>			#1 Run/Mine		4.20
Screened	7.05	5.75	#1 Slack		3.25
Run/Mine	6.55	5.25	#5 Screened		5.60
Slack		4.25	#5 Run/Mine		4.60
Nut		6.00	#5 Slack		3.60
<u>Bras d'Or</u>			<u>Inverness</u>		
1½ Screened		4.75	Slack		2.50
5/8 Screened		4.75	Screened		5.25
3/8 Screened		4.25	Run/Mine		4.25
Run/Mine		3.75	<u>Yorkshire</u>		6.40 CIF
2" Bridge Slack		3.75			
Slack		2.65	<u>COKE</u>		
Stoker 1/8 x 3/8		4.00	Dominion Stove	9.25	6.75
Stoker, Treated		4.25	Dominion Nut	9.25	6.75
Nut, Treated		5.25	Dominion Oversize		6.50
Culm		2.00	Dominion Poa	8.50	6.00

FREIGHT on Cape Breton Soft Coal: \$1.60 per ton, mines to Halifax

"	"	Coke	1.80	"	#	"	"	"
"	"	Acadia	.90	"	"	"	"	"
"	"	Springhill	1.00	"	"	"	"	"





RETAIL SELLING PRICES, 1939S. CUNARD & CO. LTD.Not in bins

<u>Acadia</u>		<u>16/25</u>	<u>Over 25</u>	<u>Yorkshire</u>		<u>16/25</u>	<u>Over 25</u>
Stove	10.00			Nut & Stove	12.00		
Nut	10.00			Lump	12.00		
Run/Mine	9.00	8.25	8.00	Smalls	9.00		
Lump	9.50			Slack	8.00		
<u>Bras d'Or</u>				<u>Dominion</u>			
Screened	8.50			Screened	10.50		
Nut, Treated	9.25			Run/Mine	9.25	8.50	8.00
Run/Mine	8.00	8.00	7.50	Slack	6.50		
Pea	7.75						
Slack	6.00						
<u>Drummond #5</u>				<u>Empire</u>			
Screened	9.50			Screened	8.00 (Cash or COD only)		
Run/Mine	8.50	8.00	7.75				
<u>Inverness</u>				<u>C O K E</u>			
Screened	10.25			Dominion Stove & Nut	\$11.50		
Run/Mine	8.50	8.00	7.50	Dominion Pea	10.50		
Stoker	5.50			Dominion Coke & Welsh Pea			
Slack	6.00			50/50	13.15		
				75/25	12.30		
<u>Sydney</u>							
Screened	10.50						
Run/Mine	9.25	8.50	8.00				
<u>Springhill</u>							
Screened	10.00						
Run/Mine	9.00	8.25	8.00				

HARD COAL PRICESAmerican

Nut, Stove &amp; Egg \$17.25

Welsh

Nut, Stove &amp; Egg 17.50

Nut-Pea 15.75

Pea  $\frac{1}{2}$  x  $\frac{3}{4}$  14.75

Buckwheat or small

Pea  $\frac{1}{2}$  x  $\frac{1}{4}$  13.75Special Blower 12.75Standard Blower 11.75

Slack 4.50

Slack (large orders) 4.00

Scotch

Nut 17.50



S.

SALES FOR FISCAL YEAR 1939

Retail Soft Coal	49160 tons
Retail Coke	5365
Retail Welsh Hard Coal	22711
Retail American Hard Coal	1147
Retail Scotch Hard Coal	<u>585</u>
	78968
Bunker Sales	15825
Wholesale Sales	<u>117192</u>
Total	<u>211985</u>

BY MR. FRAWLEY - You have appended here your purchases and your sales?

A. Yes sir.

Q. And your prices?

A. Yes sir.

Q. Now tell me Mr. Foster, is any Sydney coal sold in this area for domestic use?

A. Yes sir, large quantities.

Q. Large quantities of it?

A. Yes sir.

Q. What reception does it receive?

A. A very favorable reception.

Q. Is it used in furnaces for domestic heating?

A. There is more anthracite used in domestic furnaces here for heating than there is Sydney coal.

Q. What is the favorite coal for domestic use in Halifax areas?

A. For heating?

Q. Yes?

A. Welsh anthracite.

Q. Next?

A. Dominion coke.

Q. And third?

A. American anthracite.

Q. And fourth?

A. Bituminous coal.

Q. Nova Scotia bituminous coal?

A. Yes.





Q. Why does it rank in that order? Just a simple question of the qualities of the coals?

A. Cleanliness of it. That is the general reason as I see it.

Q. You have made some mention of Nova Scotia coal that is being specially prepared and you say that is gaining in popularity each winter. Have you anything to say about the advisability of similar treatment of other Nova Scotia coals?

A. I would like to see all Nova Scotia coals treated and sized, and believe it would help the situation.

Q. Have you made any representations to producers along those lines?

A. I have discussed the matter with Mr. McLanders, the General Sales Agent of the Dominion Coal, and he said they had it under consideration.

Q. How long ago did you discuss it with him?

A. Shortly after his appointment, I would say two or three years ago.

BY COMMISSIONER McLAURIN - Is there more anthracite sold in Halifax than bituminous coal?

A. No sir.

Q. There is more Nova Scotia coal sold in Nova Scotia than anthracite coal?

A. Yes, but not necessarily for heating. When you take in the cooking in ranges, that brings it up.

Q. That brings the Nova Scotia coal up?

A. Yes.

Q. But for strictly heating purposes and domestic furnaces there might be as much anthracite as Nova Scotia coal?

A. That is my opinion.

BY THE CHAIRMAN - You are distributors?

A. We are importers, but we do a retail business.

BY MR. FRAWLEY - Is there much oil used in Halifax?

A. There are quite a few oil furnaces here.

Q. It is made just across the harbor, is it not?

A. Yes.



EXAMINED BY MR. MATTHEWS

Q. Mr. Foster, will you kindly tell us whether the practice obtaining with the firm of A. T. O'Leary, which you have just heard, does that apply also to S. Cunard & Company?

A. Yes.

Q. With regard to different prices to different dealers?

A. Yes, that applies to us.

Q. And does that spread extend to the same extent, of 50¢ per ton?

A. As a rule, yes.

Q. And in the case of soft coal to 75¢?

A. We don't sell soft very much.

Q. Are not your prices here 75¢ higher than listed?

A. Those are not wholesale prices.

Q. What are they?

A. Retail prices.

Q. If you are selling at \$4.25 Run-of-Mine.

A. Those are carload lots.

Q. And are not your prices today 75¢ higher?

A. It is more than that.

Q. How much?

A. It was increased by the amount of the government grant last year on account of the increase in wages; I think it was \$1.22.

Q. In other words you would sell that coal to a large dealer like yourself, and you would sell it to a small dealer who could pay the cash for it, at a difference of \$1.25 per ton?

A. No, I didn't say that. I say the price has been increased since those prices were made, by \$1.22. That is the general picture to everybody.

Q. What difference is there between the price you would sell say to A. T. O'Leary or George Goodwin, and what you would sell to Service Coal, or Matthews Coal?

A. In carload lots our prices are the same to everybody.

Q. Would you like to swear to that?

A. I think I reasonably can, yes.



BY MR. FRAWLEY - Mayor Lloyd has expressed his regret at not being able to attend the Sittings personally, but wishes to say that the Mayor and Corporation of the City have been considering the question of the distribution of coal in Halifax, and with the indulgence of the Commission would like to submit a brief at a later date.

MR. COMMISSIONER McLAURIN - I am quite ready to place on the record that I am not particularly interested in the Halifax brief if they cannot get it around to the Commission on time.

BY THE CHAIRMAN - That finishes our Hearings here for the present, and on behalf of the Commission I want to thank all those who co-operated with the Commission in giving them the information they found they needed; and I want to say further that I do not expect a revolution in this matter for at least six or eight months.

4:10 HEARING ADJOURNED





APPENDIX NO. ISTATEMENT OF REVENUE FROM COAL ROYALTIES AND EXPENDITURES ON  
BEHALF OF COAL MINING INDUSTRYPROVINCE OF NOVA SCOTIA

Year	Gross Ton Sales	Royalty Revenue	Departmental Expenditure	Iron Manufacture Royalty Refund
1857	294,198	26,728.68		
1858	226,725	42,550.47		
1859	270,293	24,506.46		
1860	322,593	28,801.86		
1861	326,429	28,887.88		
1862	395,637	34,517.62		
1863	429,351	36,001.19		
1864	576,935	37,867.20	3,000.00	
1865	635,586	43,645.00	5,319.56	
1866	558,520	46,939.75	9,745.83	
1867	471,185	65,209.65	9,786.82	
1868	453,624	44,621.27	9,478.20	
1869	511,795	38,376.99	9,393.36	
1870	568,277	48,673.73	9,179.71	
1871	596,418	46,289.20	7,692.95	
1872	785,914	64,014.32	6,263.02	
1873	881,106	83,507.52	7,493.18	
1874	749,127	77,354.03	6,855.59	
1875	796,795	51,379.92	7,262.07	
1876	634,207	50,406.98	6,417.48	
1877	687,065	66,427.36	5,894.27	
1878	693,511	42,859.90	5,706.72	
1879	688,624	40,840.95	4,066.36	
1880	954,659	49,065.61	4,814.61	
1881	1,035,014	73,674.62	6,740.80	
1882	1,250,179	90,448.28	6,755.00	
1883	1,297,523	104,953.47	7,569.30	
1884	1,261,650	86,277.20	7,888.56	
1885	1,254,510	101,411.25	8,400.55	
1886	1,373,666	101,656.53	10,698.39	
1887	1,519,684	119,670.16	9,371.13	
1888	1,576,692	124,776.06	8,889.70	
1889	1,555,107	128,395.80	12,203.32	
1890	1,786,111	129,646.79	13,164.09	
1891	1,849,945	143,572.10	13,481.76	
1892	1,752,934	135,962.80	13,485.46	
1893	1,485,924	142,058.25	10,403.57	
1894	2,019,742	209,330.52	15,431.10	
1895	1,831,357	214,647.76	21,048.82	
1896	2,047,133	235,918.02	19,710.04	
1897	2,013,421	224,331.24	21,294.07	
1898	2,135,397	227,011.31	27,159.71	
1899	2,419,137	241,913.70	22,650.17	
1900	2,997,546	299,754.60	30,610.61	
1901	3,119,335	367,925.46	43,892.92	2,630.44
1902	3,898,626	413,556.84	34,053.65	19,655.85
1903	4,621,074	523,364.31	49,928.86	52,184.22
1904	4,544,609	517,543.64	53,402.62	26,114.10
1905	4,475,284	549,639.98	57,987.76	41,732.51
1906	5,194,590	575,065.89	55,031.83	64,954.57
1907	5,046,690	562,775.78	54,236.79	40,331.45
1908	5,485,583	616,933.66	67,897.09	65,294.48
1909	4,615,713	562,061.14	65,123.44	40,949.48
1910	4,896,896	554,491.48	55,143.85	



Year	Gross Ton Sales	Royalty Revenue	Departmental Expenditure	Iron Manufacture Royalty Refund
1911	5,556,464	591,556.66	62,269.19	
1912	6,177,615	733,159.75	65,940.20	
1913	6,478,709	799,200.50	71,791.85	
1914	6,164,600	704,183.94	73,415.63	
1915	5,757,907	673,990.77	61,924.28	
1916	5,933,710	759,449.78	60,914.41	
1917	5,143,075	663,322.62	68,453.90	
1918	4,613,484	586,036.32	49,423.52	
1919	4,459,648	557,456.52	51,025.67	
1920	5,087,744	608,364.51	66,449.32	
1921	4,715,977	556,385.12	72,055.65	
1922	3,962,120	490,318.26	73,405.38	
1923	5,507,987	671,233.27	75,548.48	
1924	4,448,188	687,321.87	81,496.65	
1925	2,893,609	307,094.76	77,890.59	
1926	5,090,599	636,324.87	86,215.98	
1927	5,948,099	743,512.37	98,906.43	
1928	5,518,535	689,816.87	114,574.83	
1929	5,766,212	720,776.50	109,730.88	
1930	5,281,508	660,188.50	102,378.78	
1931	4,315,429	539,428.62	95,685.90	
1932	3,359,279	419,909.87	80,780.63	
1933	3,277,251	409,656.37	77,581.67	
1934	5,169,767	646,200.87	94,943.05	
1935	5,730,675	716,334.37	103,567.27	
1936	5,371,966	671,495.75	90,003.73	
1937	5,842,668	730,333.50	107,739.59	
1938	5,258,293	657,286.62	121,251.50	
1939	5,542,679	692,834.87	126,331.11	
1940	6,449,123	809,101.85	146,677.20	
1941	5,930,574	758,070.03	126,273.75	
1942	5,971,613	751,104.06	137,264.57	
1943	4,933,297	623,250.28	165,237.76	
1944	4,743,018	602,685.21	184,025.21	

Total	270,281,068	31,365,632.71	4,123,399.25	\$353,847.10
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Year	Assistance and Investigations	Royalty Remitted	REMARKS
1857			
1858			
1859			
1860			
1861			
1862			
1863			
1864			
1865			9 months to Sept. 30, 1864.
1866			
1867			Sept. 30/66-Dec. 31/67
1868			
1869			
1870			
1871			
1872			
1873			
1874			
1875			
1876			
1877			
1878			
1879			





APPENDIX NO. I (Continued)

Year	Assistance and Investigations	Royalty Remitted	REMARKS
1880			
1881			
1882			
1883			
1884			
1885			
1886			
1887			
1888			
1889			
1890			
1891			
1892			
1893			9 months to Sept.30/93
1894			
1895			
1896			
1897			
1898			
1899			
1900			
1901			
1902			
1903			
1904			
1905			
1906			
1907			
1908			
1909			
1910			
1911			
1912			
1913	94.00		Fire Drummond Mine
1914	2,087.60		Fenwick Mine
1915	8,006.64		" "
1916	700.00	39,296.39	Dominion Coal Co.
1917			
1918			
1919			
1920			
1921			
1922			
1923	1,313.16		Inverness Investigation
1924	28,534.64		Minudie Mine Operating Expense
1925	104,184.04		Fenwick Coal Co. Debit to Aug. 28/25
		106,925.13	Dominion Coal Rebate
1925	17,841.75		Cost of Strike C.B.
1926	26,115.90		Dom.Coal Investigation
1927	5,000.00		Fenwick Coal Co.
1927	4,463.89		Re. Coal Rates
1928	2,883.93		Drill Equipment
	4,972.11		Fuel Investigation
1929	1,310.33		Special Comm.of Investigation
	10,018.68		Coal Research
1930	1,241.25		Special Com. of Investigati on
	100.00		Drill Equipment
	10,194.95		Fuel Investigation
1931	9,951.69		Fuel Investigation
1932	16,857.03		Duncan Royal Commission



Year	Assistance and Investigations	Royalty Remitted	REMARKS
1933	3,482.32 3,570.25 3,043.61		Harbour Side Coal Mine Mine Equipment Dominion Coal Miners Ret'd to England
1934	4,368.35 4,891.20 20,000.00 6,897.60 12,239.47		Harbor View Mine Maintenance Acadia Investigation Grant to Acadia Coal Standard, Elite & Port Hood Elite Anthracite Mine
1935 (To Nov.) (30/35)	4,979.51 2,773.05		Narrows Mine Elite Anthracite Mine
1936	5,665.61 5,650.44		Dom. Coal-re Toronto Exhib, Draegermen Advtg. N.S. Coal Equipment
1937	1,822.95 28,036.81 815.65		Assistance to Mines Acadia Investigation N.S. Steel & Coal Co. " " " " "
	21,484.77	39,929.38	Companies Act. N.S. Steel & Coal Fee Regis. Acadia Inquiry Compensation Acadia Coal Taxes Acadia Coal Acadia Coal Acadia Drilling Rowell Commission Acadia Investigation Acadia Investigation Port Hood Dewatering Port Hood Dewatering Shore Coal Company
	2,100.00 1,024.44		
1938	132,000.00 27,785.08		
	7,527.41 4,869.77 900.50	147,335.89	
1939	123.94		
	8,761.21		
1940	9,597.27 9,000.00		
1941			
1942	1,688.44		Grading Roads to Mines
1943	542.11		W. Simpson Survey
		122,521.01	Royalty Bad Debts 1927
1944	1,000.00 219.10		Grant to N.S. Mining Society Expenses to Ottawa Fuel Conf.
Total	<u>\$592,732.45</u>	<u>\$456,007.80</u>	



APPENDIX IIINVERNESS COAL MINE - GOVERNMENT CONTROLSTATEMENT SHOWING TOTAL PAYMENTS MADE BY THE PROVINCE OF  
NOVA SCOTIA ON ACCOUNT OF THE INVERNESS COAL MINE

<u>Period</u>	<u>Deficit</u>	<u>Capital</u>
Aug.26/25 to Mar.31/27 Amt.Pd. 1st Guarantee	\$13,479.07	
Apr.21/27 " Oct. 21/27 " " 2nd "	25,000.00	
Oct.21/27 " Feb. 14/28 " " 3rd "	13,030.69	
Feb.15/28 " Apr. 30/29 " " 4th "	40,000.00	
1929 Guarantee to Eastern Trust (See Public Accts.)	7,109.37	
May 1/30 to Sept.30/30 Pb.Accts. - Eastern Trust Co.	41,527.44	
Oct.1/30 " " 30/30 Pb.Accts.Eastern Trust	95,916.09	
" 1/31 " " 30/32 " " " "	154,181.30	
Aug.31/32 " June 22/33 Inverness Co-Op. Co.	90,309.20	
June 22/33" Aug.10/33 Govt. Maintenance	28,836.09	
Aug. 10/33" Dec.14/33 Imperial Coal Co.	25,028.77	
Dec.14/33 " Sept.30/34 Govt. Control	51,265.95	
1945 14 months " "	186,695.37	
1935 Construction & Development		\$259,976.64
1936 Operating loss	84,762.89	
1936 3 Electrical Pumps Installed		35,000.00
1937 Operating loss	45,887.82	
1937 2 Electric Hoists Installed		20,000.00
1938 Operating loss	63,816.44	
1938 Drilling & Development		31,815.62
1939 Operating loss	83,564.60	
1939 Geology & Drilling		11,245.09
1940 Operating loss	38,741.62	
1940 Geology Surveys		2,383.13
1941 Operating loss	94,303.95	
1941 Property purchase (Reservoir)		1,000.00
1942 Operating loss	107,172.17	
1942 No. 5 Development Equipment		28,478.57
1943 Operating loss	101,450.34	
1943 Electric Hoist and Compressor		11,430.41
1944 Operating loss	241,135.33	
1944 Screens		1,418.00
	<u>\$1,633,214.50</u>	<u>\$402,747.46</u>

S U M M A R Y

Deficits	\$1,633,214.50
Capital	<u>402,747.46</u>
	<u>\$2,035,961.96</u>





APPENDIX IIIEstimate of costs of a coal preparation plant:I - Assumptions

(1) The field, with coal generally similar in quality to Joggins River Hebert field, has a productive capacity of 400,000 tons per annum. Ash analyses from various mines average 16%.

(2) Physical and chemical tests have shown:

(1) Screen Analyses at Receiving Bins				
Trade Name <sup>x</sup>	Screen Size		Weight %	Ash %
Lump )	Screen- ed	Over 3"	13	9
Egg ) Lump		Thru 3" " 2½"	6	11
Stove )		" 2½" " 1½"	7	14
Stoker Nut		" 1½" " ¾"	19	15
Stoker Pea		" ¾" " ⅜"	12	17
Blower No. 1 )	Slack	" ⅜" " ⅜"	15	18
Blower No. 2 )		" ⅜" " ⅜"	13	18
Dust		" ⅜"	15	21

<sup>x</sup>Canadian Government Purchasing Standards, 18-GP-1, 1940

(ii) Washing Tests on Material Thru 2½" and over ⅜" Screens Show:

Product	Weight %	Ash %	Calorific Value B.t.u./lbs.
Raw coal	100	15.1	12500
Clean coal	78	8.7	13250
Waste coal	22	39.9	9800 <sup>x</sup>
Dust (not washed)			10750

<sup>x</sup>  
calculated

(iii) Bulk density tests on screened sizes show each ton of screened coal will require 45 cubic feet storage space. Bulk density tests on raw coal show each ton of raw mined coal will require 39 cubic feet storage space.

(3) Markets are,-



Railway use: run of mine, screened, stoker nut	200,000 tons	
Domestic and industrial, and power	<u>200,000</u>	"
	400,000	"

Railway needs are uniform and regular weekly deliveries on order will be accepted. Domestic and industrial needs are variable, requiring storage for approximately 25 per cent of annual demand.

## II - Calculations

The test results indicate certain essential plans for the operation:-

(1) Material over  $2\frac{1}{2}$ " is relatively clean and need not be washed. This amounts to 19% of the raw coal and represents an annual tonnage of 76,000 tons.

(2) The dust through  $3/32$ " is too fine for commercial washing. It can be used directly for power generation. It amounts to 15% of the raw coal received or 60,000 tons per year.

(3) Washing capacity is needed for,-

$$400,000 - (76,000 \text{ plus } 60,000) = 264,000 \text{ tons}$$

(4) Suitable washing should yield,-

Clean coal - 78% of 264,000 tons = 206,000 tons  
with an average ash content of 8.1%

Waste - 22% of 264,000 = 58,000 tons  
with an average ash content of 39.9%

(5) Fuels available for power generation are,-

Washing wastes 58,000 tons at 39.9% ash and 9800 B.t.u./lb.

Dust                      60,000    "                      21                      "                      10750                      "

Total                      118,000 tons (30.3%) ash                      10250 B.t.u./lb.

Possible power production with this fuel at estimated  
16,000 B.t.u. per k.w.h.

$$\frac{118000 \times 2000 \times 10250}{16000} = 150,000,000 \text{ k.w.h.}$$

$$\text{at 8760 hours per year} = 17,300 \text{ k.w.}$$

Power plant required at 50% load factor = 35,000 k.w.





(6) Receiving bins and sampling units are required for daily input of,-

400,000/250 = 1,600 tons daily

Primary screening for dust removal and separation of plus 2½" material will take place at this point, and these two products will by-pass the washing plant, dust going direct to power plant and over 2½" lump going direct to storage.

(7) Clean coal storage requirements,-

Total production		400,000 tons
Railway	200,000	
Washing waste & dust for power	100,000	
Normal sales, domestic and industrial	75,000	
Storage capacity	<u>25,000</u>	<u>          </u>
Total tons	400,000	400,000

### III ■ Plant Layout

Outline flow sheet of a plant is shown in figure I.



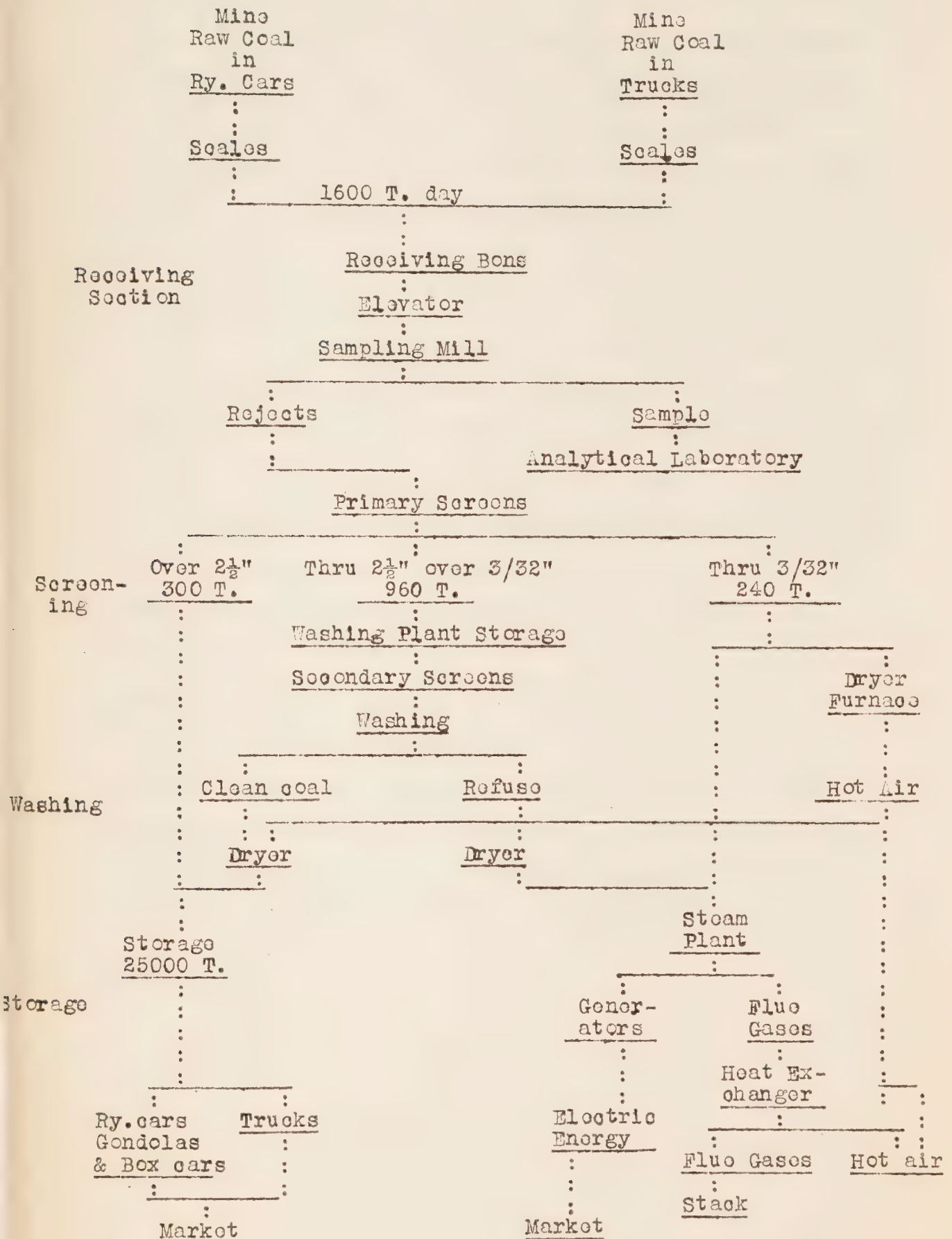
OUTLINE FLOW SHEET

Figure I.



APPENDIX IIIReceiving Section

Plant must receive, and weigh immediately, shipments from mines by railway car or truck. Bottom dump cars will simplify discharge to plant receiving bins. Shipments should be sampled as received for payment on basis of weight and analysis. Raw coal after sampling can go direct to primary screens.

Screening Section

Coal from sampling plant will go to primary screens and lump coal and dust removed - lump coal going direct to clean coal storage and dust to power plant bunkers; balance to washing plant storage for 1,000 tons capacity, and from there will be delivered to secondary screens and washing plant. Secondary screens in the washing plant will be adjustable to produce sizes as demanded by market or for best washing conditions.

Clean Coal Storage Section

Under cover storage of clean, dry products is essential for satisfactory marketing. Storage accommodation should have facilities to keep separate stocks of various screen sizes produced and equipment to blend them so as to be able to load any size or blend into railway cars or trucks.





APPENDIX IIIIV - Costs(a) Capital

1. Receiving section: scales, receiving bins, elevators, sampling mill and analytical laboratory.	\$100,000.00
2. Screening and cleaning section: Elevators, screens, washers, dryers and dryer furnaces	425,000.00
3. Storage and delivery section: Belt conveyors, distributors, bins, tunnel discharge, box car loaders, etc.	675,000.00
4. Power plant section: Bunkers, pulverizers, boilers, generators, etc. for 3,5000 K.W.	3,500,000.00
5. Site, engineering, miscellaneous, and unforeseen	<u>300,000.00</u>
	\$5,000,000.00

(b) Operating Costs (exclusive of power plant)

Per ton of clean coal produced at a production rate of 284,000 tons per annum

	Per Ton Clean Coal %
Receiving, screening, washing, drying, storing and loading	<u>.35</u>
Interest and amortization on \$1,500,000 - 15 years at 3%	.45
Miscellaneous and unforeseen	<u>.05</u>
Total operating costs of ton	\$ ,85



APPENDIX III(c) Sales Value of Clean Coal

Cost raw coal at mine 400,000 tons @ \$4.10 <sup>1</sup>	\$1,640,000
Freight, mine to preparation plant .35	<u>140,000</u>
Cost of coal at plant	1,780,000
Operating Costs 284,000 tons .85	<u>242,000</u>
Gross costs	2,022,000
Less credits for 118,000 tons to power plant	<u>295,000</u>
Net costs on 284,000 tons clean coal	1,727,000
Sales price per ton - \$6.15 <sup>2</sup>	

(d) Power Production Costs

Interest and amortization of plant \$3,500,000 in 15 years at 3%	239,000
Fuel 118,000 tons at \$2.50	295,000
Other operating costs (estimate)	<u>66,000</u>
Total operating costs	<u>\$600,000</u>

Production capacity 150,000,000 k.w.h.

Costs per k.w.h. \$0.004

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<sup>1</sup> Average cost of producing coal in Nova Scotia 1939 was \$4.10 per ton, vide Maritime Prices and Trade Board (Coal Administrator) Chart, 1939, 1940.

<sup>2</sup> Average sales price screened coal, Joggins area 1939 - \$5.06  
Present price is about \$6.28.



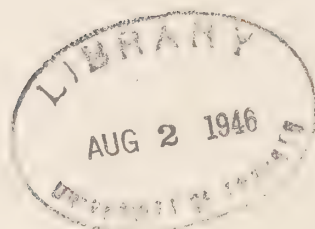


Kentville, February 5th, 1945.

EXHIBITS

No. 50 - Brief presented by Kentville  
Board of Trade, 5/2/45.....page 967

No. 51 - Memorandum by Wolfville  
Board of Trade, 5/2/45.....page 991.





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ROYAL COMMISSION ON COAL

Kentville, N. S., Monday, February 5th, 1945.

VOLUME XII

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THE ROYAL COMMISSION ON COAL

Kentville, N. S., Monday, February 5th, 1945, 10:00 A.M.

PRESENT: Honorable Mr. Justice W. F. Carroll, Chairman.  
Honorable Mr. Justice C. G. McLaurin, Member.  
Angus J. Morrison, Esquire, Member.  
J. J. Frawley, K.C., Counsel for Commission.  
Robert D. Howland, Secretary.

COLONEL B. W. ROSCOE - If you will permit a word of welcome on behalf of those present representing the Boards of Trade of our Valley Towns, and the Citizens of the Town of Kentville, who are very pleased that you have chosen this town as one of the places in which your enquiry will be held.

We heartily welcome you and your associates here, and while our problems I think will be found to be mainly those of supply and transportation, they are closely interwoven with the greater problem in the scope of the enquiry of your Commission, which is one of such national importance and one to which we hope, and confidently expect, that a solution may be found.

BY MR. FRAWLEY - There are some representatives here this morning from the Kentville Board of Trade, and the Wolfville Board of Trade, and Dr. Blair is here to present the brief of the Kentville Board of Trade.

DR. W. S. BLAIR - EXAMINED BY MR. FRAWLEY

Q. Dr. Blair, you are a member of the Executive of the Kentville Board of Trade?

A. Yes sir.

Q. And you are Chairman of a Committee that was formed to make a submission here?

A. I am one of the Committee.

Q. One of the Committee that has been working on a presentation to this Commission?

A. Yes.





Q. And you have a submission here this morning to present?

A. Yes.

EXHIBIT NO. 50 - Brief presented by Kentville  
Board of Trade, 5/2/45.

BY DR. BLAIR - This is a brief that was presented by this Committee as already indicated. I happened to be on the Committee, and the Chairman of the Committee was not able to be here this morning, and this is submitted in the name of the Board of Trade.

We appreciate the honor to be asked to appear before you at this time, and thank you for the privilege accorded in giving your time to enable a presentation of certain views, expressed by coal consumers and distributors, which while probably not new to you will at least give you a fair indication of what our people are thinking.

In presenting these views we desire to point out at the outset that we recognize the need for a continuance of our coal mines as a factor of great economic importance to Nova Scotia, and that it is to our advantage to make the fullest possible use of our coal deposits. We fully realize that there are certain disadvantages in the handling of soft coal, and that even after graded into classes as to size, these may change very considerably from mine to the cellar. It will be necessary to consider this as the trend is towards a cleaner coal demanding less care than many of the coals now being used.

BETTER GRADING OF COAL - We therefore ask that you give consideration to the matter of classification of coal for domestic use so that the unsuitable portions we get may be reduced, and that which is equally as good for industrial purposes to be fed into the fire box by mechanical stokers, be channeled to this use. In other words we seem to get what is in reality a run of mine product, and while we do not hope to get our soft coal graded into the uniform product that is supplied in some of the imported harder coals, yet we do think there is ample scope to make a great improvement without any cost to the producer. It seems to be the case that the distributor tries to satisfy the customer,



as in almost every coal yard screens are in evidence. The consumer for home use demands a coal that can be used without constant attention, and the trend is towards those coals which do not require the close attention that is demanded if the present day Nova Scotia soft coal is used. Information as to the suitability of certain deposits over others to take the place of the imported coals may make it easier for the consumer to get what is most suitable.

IMPROVEMENT IN FURNACES - It is suggested that in many cases the reason why so much difficulty is experienced in the handling of our soft coal and in getting full fuel value from it is due to the type of furnace used. Much of the coal used prior to the war was imported from Overseas and could be landed in our territory about as cheaply in freight cost as that from the Cape Breton mines, and no doubt this same condition may happen after the war. And as the types of furnace were set up for this kind of coal it is quite likely they are not entirely suitable for the bituminous coal we have. It is suggested that a study be made of this matter for it is very evident that the soft types of coal with the higher percentage of volatile matter requires a different adjustment from that required for the harder coals with little volatile matter in their make-up. The matter of automatic regulation through a thermostatic device to control air intake seems to be highly important. The use of soft coal is most trying in that constant attention is necessary to avoid overheating and as we all know combustion of it without great loss is impossible unless the most exacting care is given. There does not seem to be much difference in the actual heat value in hard coal over the soft coal, but much more attention must be given to the furnace and stove if we are to make best use of the heat in soft coal. It would seem there is need for considerable more information on this point than seems to be at present available. It may be that an educational campaign is necessary if we are to make full use of our soft coal deposits for domestic use.





TRANSPORTATION CHARGES - Because two transportation systems operate between the mine and certain stations the haulage charges are greater, in so much so that it may be hauled to greater distance and landed at certain points considerably below the cost when handled over the two roads. Such matters should be adjusted so that this difference should not occur. There should be some way whereby these differences may be equalized and the cost not be so greatly different as at present. This matter we submit for your attention.

CONCLUSION - Should there be, as appears to be possible, an increase in coal imports after the war, and the added possibility of getting a regular supply of fuel oil for ranges and furnaces, the trend will be to use these cleaner and more easily controlled fuels rather than the soft coal from the Nova Scotia mines, even though the actual cost of product may be greater. This trend may be largely lessened by a more strict classification of the coals suitable for industrial plants, where through stoker equipment, with properly controlled air intake, they can make full use of the carbon and volatile products in the coal, and use be made of the best grades only, as free from slack and dust as possible, for household and furnace use. It would seem desirable to devise some way to establish grades as to quality and utility factors, so that a full understanding may be reached as to the most satisfactory local coals for certain purposes.

We have not exhausted this subject by any means, and have simply attempted to bring to your attention certain things which appear to us to be necessary to consider if more use is to be made by our householders of the coal deposits apparently intended for our use. Respectfully submitted. (Sge) F. J. Burns, President Kentville Board of Trade.

EXAMINATION OF DR. BLAIR BY MR. FRAWLEY

Q. Dr. Blair, I was interested in your saying that what you got is in reality a run-of-mine. Is there any reason for that, why you don't get a screened coal if you should want it?

A. That is the point, are we sure that we are getting screened



coal, or are we getting the run-of-mine. I was saying it seemed more like the run-of-mine.

Q. Let us see what the mechanics of it are. In Kentville have you both Wholesalers and Retailers?

A. We have retailers.

Q. And they buy how?

A. I fancy they buy direct from the mine in many cases, or through the agents. We have some coal dealers here.

Q. Perhaps if I question them. I would like to know what difficulty they have in getting a specified coal.

A. There seems to be too much of this fine material that makes it very difficult to handle in connection with our house furnaces.

Q. What I would like to get at is why you cannot get exactly what you want, and if there are no facilities to get that we will get it on the record.

A. I have said here that the distributor tries to satisfy the customer, as in almost every coal yard screens are in evidence. The idea seems to be that it breaks down in transit.

Q. It was recommended by one dealer that the screening should take place at the point where it goes to the consumer, and not at the pit head?

A. I think that is right.

Q. It follows then that you might get run-of-mine and do the screening and preparation here. But I think we had better pursue that with one of the dealer witnesses that are here. Now you spoke about the inequality in transportation charges. Would you like to discuss that with me, Dr. Blair?

A. I don't know enough about it to give you any information on it.

Q. I don't want to question you on something that you don't know a great deal about.

A. It has been suggested that that is a factor.

Q. Perhaps I had better discuss that with some of the dealers. Do you find any trend away from coal on to oil in this area?





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Dr. W. S. Blair

A. Very definitely.

Donald Oiler

Q. Is there a very great price differential against coal in that regard?

A. There seems to be a great difference of opinion. A lot of people tell you it does not cost as much to use fuel oil as coal, and the reason is that they have the fuel under control, and that is the reason we have to put so much emphasis on the furnace.

It is not so much the fuel as the use you make of it through machinery that you have to put it into the furnace, and that is the point we wish definitely to bring to your attention, the need of more educational work along that line.

DONALD OILER - EXAMINED BY MR. FRAWLEY

Q. Mr. Oiler, you are in the coal business in Kentville?

A. Yes sir.

Q. Wholesale or Retail?

A. Both.

Q. Where do you get your supplies as far as Nova Scotia coal is concerned?

A. Mostly from Pictou County, Intercolonial coal, and from the Dominion coal.

Q. Do you import any foreign coals?

A. Not since the war.

Q. Or any British coal?

A. Before the war.

Q. Don't you get any Welsh coal now?

A. No.

Q. Or any American coal?

A. Just the odd carload through the coal dealer at Halifax.

Q. Dealing with Nova Scotia coal, what have you to say generally and specifically?

A. Well to be quite frank, Nova Scotia coal (we are speaking of before the war) as compared with Yorkshire for instance, that we used to import, I think the quality of the Yorkshire is superior to the Nova Scotia.

Q. Is it Bituminous or Anthracite?

A. Bituminous





Q. Nova Scotia coal?

A. Yes.

Q. You bought that through O'Leary & Co.?

A. Yes, and Cunard.

Q. You say the Yorkshire was superior to the bituminous Nova Scotia coal?

A. I would say superior in quality on the basis of analysis alone, and the grading is better, I think about six different sizes, large, treble, double, single, down to duff.

Q. Is that done at the mines in Yorkshire, or in Halifax?

A. At the mines.

Q. It comes over that way?

A. Yes.

Q. And you find that a very satisfactory business?

A. Yes, there are certain sizes that we want.

Q. From the standpoint of classification you find that well suited to your needs?

A. Yes, serves any purpose.

Q. And if you could get the same service from the Nova Scotia producer you would be pleased about it?

A. I would not suggest six grades, but at present I suggest that we get screened which is 1" bar screen and anything from that up, and run-of-mine as it comes from the pit which includes everything, duff and all, and the other grade is slack in most cases. Slack is anything from 3/4" to zero. I suggest that if we had a size of something say 1/2" to 3/4".

Q. You say at the present time you get three classes, run-of-mine, screened and slack?

A. Yes, with the exception of the Bras d'Or which make a nut stoker which is very good.

Q. Is that a prepared coal?

A. Yes.

Q. Is it oiled?

A. Yes.

Q. And some comes in this area, does it?

A. Yes.



BY THE CHAIRMAN - Where is that from?

A. Bras d'Or.

EXM. BY MR. FRAWLEY (continued)

Q. Now what was your suggestion?

A. I suggested that with this automatic stoker if we had more of the out size it would burn more satisfactorily than anything you call slack. Some care have practically none of the nut, and others have say perhaps fifty-fifty.

Q. If you told the Dominion Coal Company today, or the Intercolonial Company, that you wanted a stoker coal, could you not get it?

A. No.

Q. You have tried that, have you?

A. Prior to the war Springhill used to put up one.

Q. I am speaking of prior to the war. You are speaking of the Dominion at Sydney and the Intercolonial at Westville?

A. Yes.

Q. And you have tried both of those firms and they have not been able to give you a prepared coal?

A. No.

Q. You mean oiled?

A. No, sixed.

Q. Where did you get it?

A. Springhill prior to the war. This Company was putting out a certain percent at Springhill, but now it is off the market.

Q. When you would go to the Dominion Coal and ask for a stoker coal?

A. You could not get it.

Q. But they would give it to you from their subsidiary, the Springhill Company?

A. Yes, before the war.

Q. So before the war you were getting what you wanted in the way of a sixed stoker coal?

A. From Springhill.

Q. And the Intercolonial at Westville were not able to supply it?

A. No.





Q. And the prepared and treated coal you have not been able to get from anybody but Bras d'Or?

A. No.

Q. Would you rather have it sized at the mine than do it yourself?

A. We would rather, yes.

Q. Some say this coal is so friable that it should be prepared a little nearer to the point of consumption?

A. My point is that a more friable coal arrives in better shape like Old Sydney.

Q. Have you had good success with it?

A. Yes.

Q. Except you didn't get the sized?

A. Yes.

Q. And you say there is further need for sized coal and treated coal?

A. Yes.

Q. How does it compare otherwise for ash and sulphur, the Nova Scotia coal generally?

A. I don't think I can speak on that. Generally speaking, it would be very difficult, because there is a great difference in the quality of Nova Scotia coal. Cumberland County coal is very high in sulphur, it would be no good for an underfed stoker, they run into a solid mass.

Q. When you say Cumberland coal?

A. Joggins.

Q. Springhill?

A. That is the exception.

Q. Cumberland County other than Springhill?

A. Are not suitable for these underfed stokers.

Q. Moving into Pictou County, are they better suited?

A. They don't make a prepared size.

Q. Therefore you eliminate that?

A. I would prefer if you can get away with it.

Q. What about the Cape Breton coal?

A. There is one seam in the Drummond mine at Westville, No. 5.



but they have two other seams, 1 and 2, that are not satisfactory. In fact I don't believe they have a market for it. They use it themselves.

Q. How about Cape Breton apart from size?

A. Old Sydney and Dominion are good. Inverness is no good.

Q. You have both industrial and domestic consumption?

A. Mostly domestic.

Q. What do your industrial plants here use?

A. Mostly slack.

Q. Would they have specially suited equipment?

A. Yes they have the stokers of various types.

Q. Any pulverizers here?

A. I don't think so.

Q. Now this transportation differential, is that a cause of serious complaint?

A. Well it is rather obvious, from Sydney to Kentville the freight rate is \$2.50, and from Sydney to Middleton..

Q. Is that about the same mileage?

A. That is 30 miles less.

Q. Also on the D.A.R.?

A. Yes.

Q. You told us Sydney to Kentville was \$2.50?

A. Yes.

Q. Now Sydney to Middleton?

A. Which is 30 miles further west than Kentville.

Q. And the per ton rate is?

A. I am not quite certain.

Q. Yours is \$2.50?

A. Yes.

Q. And the rate from Sydney to Middleton is?

BY RAND MATHESON - \$2.20.

EXM. OF MR. OILER BY MR. FRAWLEY (continued)

Q. Have you taken that up with the Railway to know the explanation?

A. Well Middleton is a competitive point for the C.N.R.



Q. Middleton is on the C.N.R. as well as the D.A.R.?

A. Yes.

Q. The rate from Sydney to Kentville is \$2.50?

A. Yes.

Q. And the mileage is (you can take it from me) approximately 328 miles?

A. I don't know exactly.

Q. And the rate from Sydney to Kentville is \$2.50?

A. Right.

Q. And the mileage is somewhere around 328 miles?

A. I will take your word for that.

Q. The rate from Sydney to Sackville which is about the same mileage but which is all C.N.R., is \$1.80?

A. Yes.

Q. You know of course why that is?

A. Well I have an idea.

Q. It is on two railways to Kentville. That is the first simple explanation. I think that is one of the things you were bothered about?

BY THE CHAIRMAN - There are two railways serving in Kentville?

A. No, but to get coal from Sydney we have to come over two railways.

BY MR. FRAWLEY

It comes to Windsor Junction and is then given to the D.A.R. and because of that the rate is \$2.50, as against a similar mileage of \$1.80 if it is all C.N.R. That is what I thought that paragraph meant in this submission.





BY THE CHAIRMAN: Middleton is served by the C.N.R. and the D.A.R., isn't it?

A Yes sir. If the coal came from Sydney by the C.N.R. it would go to Truro to Halifax to Bridgewater to Middleton. I don't know what the distance would be but it would be considerably more mileage as against Sydney to Truro to Windsor to Middleton.

BY MR. FRAWLEY: Will you tell us now what the mechanics of your buying of coal is? When you want to buy coal from the Dominion Coal Company at Glace Bay through what agencies do you buy it?

A Their own selling agency in Halifax, their own office.

Q The Dominion Coal Company has a selling agent in Halifax?

A Their own office.

Q That is Mr. Curry, and you place your order with Mr. Curry?

A Yes.

Q And the coal comes direct to your yard at Kentville?

A Yes.

Q And you settle your account with the Dominion Coal Company at Glace Bay?

A Yes. They draw drafts on us, Glace Bay or Sydney.

Q And is the rate you get per ton per car the same rate as paid by any other of your competitors in this area?

A To the best of my knowledge.

Q Now when you buy other coals are you on the same basis? When you buy from the Intercolonial at Westville?

A I buy from them direct.

Q How about Old Sydney Collieries?

A Dominion Coal Company.

Q You buy through Dominion Coal Company?

A Mr. Curry is the agent for the Acadia, Dominion, Springhill and Old Sydney.

Q Do you sell Sydney coke up here?

A Yes.

Q How do you find that?



A Quite satisfactory,

Q How does it compare in peacetime with your American anthracite?

A I would say it is superior to American anthracite.

Q You speak of the American anthracite you get in peacetime?

A Yes.

Q Where was it coming from?

A Pennsylvania, through the Pennsylvania and Reading, and Blue Coal, the Delaware and Lackawanna. I prefer the Canadian coke to that.

Q Were you able to buy that coal direct or did you have to buy it through a Nova Scotia or Canadian agent? Take the Pennsylvania and Reading.

A Well, I bought that through agents in Halifax. Actually my importation of American was small and they could give me service.

Q You say your business in American anthracite was small and you didn't try to buy direct from the mines?

A No.

Q If you had wished, could you have bought direct from the mines?

A I doubt it.

Q And that Pennsylvania and Reading has an agent at Halifax and you dealt with him?

A Yes.

Q Welsh anthracite, how did you buy that?

A I bought through A. T. O'Leary and S. Cunard.

Q The same people you would deal with for American anthracite?

A Yes.

Q And the Welsh people have no agent in Halifax?

A Oh yes.

Q I mean with whom you could get in closer contact if you wished?

A No.





Q And you found Welsh anthracite much superior to those two American anthracites?

A Definitely.

Q How about the equipment? Was the domestic equipment built at the time that the American anthracite or some kind of anthracite was the principal fuel?

A I would say perhaps it was.

Q Has the mechanical stoker for bituminous coal gained any popularity here?

A I don't think to date that is a very big point. For instance oil has a balanced unit today. They don't suggest that you go and stick an oil-burner in an ordinary furnace. They sell you the whole unit and the results are very satisfactory if the whole unit is used and I think those are the people that are suggesting they don't find oil much more expensive than coal, but you take an oil-burner and put it in an ordinary furnace and you find the cost is considerably higher than coal. I have it proven because there is one across the street. They perhaps burned \$1200 worth of oil before the war and for the last two years they have been using Acadia screened coal and it cost considerably less, and they are paying more for coal than they would before the war, but their oil unit was just put in an ordinary furnace.

Q To be fair to the oil it was a makeshift?

A Well, it was a makeshift, but if they had put in a balanced unit---. I don't see why the same thing can't be done with coal stokers. A lot of them put in furnaces are not very satisfactory. If we had a balanced unit it would be satisfactory. I don't think the coal industry would be going behind if it had gone ahead with any scientific inventions that might cut down labor. For instance the Imperial Oil sell balanced oil units. The oil companies market them and they will push the sale of those oil-burners. They will put out fancy cuts: no dust, playing tennis down in the



furnace room.

Q Do they also sell those on terms?

A On a business basis.

Q The Oil Company itself is engaged in the selling and installation and servicing of the units that burn the fuel?

A In this locality.

BY COMMISSIONER McLAURIN: Are you going to ask some questions about the proportion of foreign coals that were used?

BY MR. FRAWLEY: Take a year like 1939. Could you give an approximation of the percentage of foreign coals that were used?

A 1939 we didn't import any bituminous coal to the best of my knowledge.

Q From England? From anywhere?

A In this locality.

BY COMMISSIONER McLAURIN: How about 1938? 1939 was an upset year.

BY MR. FRAWLEY: Go back to a year when you were importing some Yorkshire coal. How would it run?

A Oh, depending on price and conditions, I have been able to distribute as much as 10,000 tons.

Q Of?

A Of Yorkshire bituminous. And then cut down to about 2,000 when the price went up.

Q But at the time that you were distributing 10,000 tons of Yorkshire bituminous how much Nova Scotia bituminous would you be distributing?

A Oh, no more than perhaps a couple of thousand tons.

Q So that the Yorkshire bituminous was far and away the biggest part of your bituminous business?

A Oh yes. That was due to certain things. England went off the gold standard that year and exchange was away down.

Q Yorkshire coal undersold the Nova Scotia bituminous at that time?

A Yes.



Q Can it undersell it ordinarily?

A No; I mean by the time we get it landed down here.

Q Is the consumer willing to pay something more for Yorkshire?

A Some are, due to the fact that they get exactly the size they want.

Q Is any of that coal treated? Just sized, is it?

A It is washed.

Q The consumer is willing to pay something more for a washed and properly sized coal?

A Yes.

BY COMMISSIONER MORRISON: What year was this that you sold the 10,000 tons?

A It was the year that England went off the gold standard.

BY COMMISSIONER McLAURIN: 1933, 1934. What about anthracite?

BY MR. FRAWLEY: The rest of your sales would be anthracite?

A Anthracite.

Q How much anthracite in that same year?

A Oh, a couple of thousand, 3,000 tons.

Q Of American coal?

A No, no, Welsh.

Q And how much American anthracite?

A None.

Q You don't want any American anthracite if you can get Welsh?

A Right.

Q Ordinarily, give me an idea of how much business is bituminous as against anthracite of any kind?

A That is quite difficult. I never actually kept any record of that. In ordinary times I would suggest that it would be two or three to one.

Q Of?

A Of Nova Scotia bituminous as against imported anthracite.

Q But I take it that you are definitely in the market for British bituminous if you can get it?

A Oh yes, if the price is right.





- Q That is, if the price is right, if you can get the British bituminous at the proper price you would prefer that to Nova Scotia bituminous?
- A I would have to stock it.
- Q Apart from what you might feel about pushing a Nova Scotia product you would prefer the British product?
- A Yes.
- Q I think it is interesting to know that. What do you look forward to in the way of British bituminous importations after the war?
- A Well, supply and demand at first, and price, but I assume when we get down to normal there will be a certain percentage of Yorkshire coal coming in here.
- Q Did that come in under anything that could be called a favored transportation or carriage rate?
- A No, as far as ocean freight is concerned it was competitive.
- Q It didn't come over here in ballast?
- A Certainly not.
- Q To what extent do you think that properly sized and properly prepared bituminous, even Nova Scotia bituminous, for use in domestic stokers can displace anthracite of any kind, Welsh or American?
- A Well, depending on your equipment. If you could have some equipment that would be labor-saving it would probably displace quite a bit of it.
- Q Has this sized and treated and prepared coal met with a good reception in this district?
- A Yes.
- Q Largely because of its preparation and treating?
- A Absolutely.
- Q Inherently it is not any better than Dominion coal?
- A Not as good.
- Q But because it is properly prepared and properly treated can we say it is more popular?
- A The average person would prefer it due to the fact that



when it is put into the cellar there is no dust, and in rehandling it does not become dusty.

Q For these reasons it is enjoying a better reception than the Dominion coal which you say is a better coal?

A That's right.

Q But it has to be fired mechanically?

A That's right.

Q You have said that there should be a balanced unit?

A Balanced unit. Not only properly fed but properly fired when it gets in there.

BY THE CHAIRMAN: Is the Bras d'Or coal the only oiled coal that you get here, the only Nova Scotia coal?

A Yes, for the present.

BY COMMISSIONER McLAURIN: Taking one year with another, how many tons of coal would you sell? I mean roughly. After all I can imagine that your figure may be out many thousand tons.

A You mean in our wholesale and retail?

Q Yes.

A I even hesitate to hazard a guess.

Q Pre-war years?

A Around 8,000, 10,000 tons.

Q You had one year that you had 10,000 tons of bituminous alone?

A That was an exceptional year.

Q Taking about 10,000 tons as a rough approximation of your average sales, what proportion of that is foreign, whether anthracite or bituminous, or whether it is from Yorkshire or Russia or Westphalia?

A I have already said in normal times two or three to one.

Q You just answered that for bituminous. I am grouping all the foreign coal; I don't care what their quality is. What proportion is foreign coal invading the Nova Scotia market?

A That in itself is, as I say, rather difficult, because the years that the market is such that we may import, we





will say Yorkshire, there is plenty demand for it and we have had years when I would say there would perhaps be four tons of Yorkshire and imported anthracite as against one ton of Nova Scotia coal. That would only happen two or three years when the price was low, and then the market went up and I would say the circumstances reversed themselves.

BY COMMISSIONER MORRISON: You really buy, as coal dealer, based on value, regardless of where it comes from?

A Right.

Q And your people that you supply demand that?

A Right.

Q And it comes from Wales and Pennsylvania? Really a dollar and cents proposition, isn't it?

A That's right.

Q So that if the people of Ontario and Quebec adopt the same attitude with respect to Nova Scotia coal as the people of Kentville you would not have very much quarrel with them?

A Well, I don't want to go on record. I will let you answer that one.

Q Oh well now, after all, this is a serious matter.

A You can't hate them for it.

Q I have read some of the representations made by Nova Scotia people for the burning of Nova Scotia coal in Central Canada.

A Well, as I said before it is a matter of dollars and cents and quality, all go into the thing. It is true it is a national problem but I think that gets second rating.

BY MR. FRAWLEY: How much more would your customers pay for Yorkshire bituminous as against Nova Scotia bituminous if other things were equal, if they could get it?

A I would suggest it would be easy enough to get \$1.50 to \$2.00 a ton more, for a certain quantity. You wouldn't have any terrifically large sale, but for people who really appreciate quality.

Q That really corroborates the thesis I have heard in other places, that people will pay more for better coal, and the



Yorkshire coal you say is better?

A Yes.

DONALD A. CONDON. Examined by Mr. Frawley.

Q You are a coal dealer in Kentville?

A Yes.

Q Both wholesale and retail?

A Retail.

Q How do you get your supplies?

A We buy our coal from the Dominion Coal Company and S. Cunard and Company.

Q As a retailer you buy from the same people?

A Buy from the same people.

Q Are you in any different buying position at all than Mr. Oyler?

A I don't think so, as far as buying from those concerns is concerned.

Q What is the difference when he says he is a wholesaler and retailer and you are a retailer?

A I wouldn't be in a position to say.

Q You don't buy through Mr. Oyler?

A No. Those are the only two sources of supply we have.

Q What are those two?

A Cunard and Dominion Coal Company.

Q If you want to buy Dominion coal you go to Mr. Curry in Halifax and you buy from him?

A Yes.

Q And so far as you know you get the same prices that Mr. Oyler gets?

A Yes.

Q Even though he calls himself a wholesaler and retailer?

A Yes.

Q How do you find the Sydney coal? Do you sell any Sydney coal for domestic purposes?

A Yes, we do. We find it a very good grade of coal. To



start with, we can buy three prices of it. We buy run-of-mine and screened coal. That is only two.

Q You don't handle slack?

A Yes.

Q Then you can buy run-of-mine, screened coal and slack?

A That's right.

Q Have you had any trouble, in asking for a particular kind of screened coal, any trouble getting it?

A No, I can't say so.

Q Have you ever bought any what is called sized coal from them?

A We used to buy Springhill coal of a sized nature. It was I suppose "Q" sized, possibly.

Q Was it sized coal?

A Oh yes, it was a very nice preparation of coal.

Q You found that quite suitable?

A Yes.

Q Did you get all you wanted? Did it matter very much that the Dominion from Cape Breton couldn't give it to you?

A No, we could get all we wanted to from Springhill before the war.

Q So that as far as Dosco was concerned they were able to give you all the sized coal you wanted from their Springhill operations?

A Yes.

Q That was just as good as Cape Breton coal?

A It was very nice coal.

Q If that is resumed after the war that will satisfy your needs as to sized coal?

A I believe it will.

Q Do you find any need for a treated coal?

BY THE CHAIRMAN: You mean is there any demand?

BY MR. FRAWLEY: Are your customers demanding a treated coal?

A For domestic use, yes.

Q Can you get a supply of it now?





A We can get Bras d'Or oil treated stoker coal.

Q Do you have any difficulty buying that?

A No, we buy that from S. Cunard and Company and we have received cars of it.

Q Why would you have to go to Cunard's?

A Cunards are the agents.

Q You can't get any Bras d'Or prices from the mine direct, other than from Mr. Foster?

A I don't think we have ever made any inquiries about that. We just assumed that they were the agents for it. I don't think we ever tried to buy direct from the mine.

Q Would it help your market if you could get a coal of that kind from other collieries?

A I think it would, very definitely.

Q About how much coal would you sell in a year?

A Probably between 3,000 and 4,000 tons rail.

Q You operate just in the town of Kentville?

A Town of Kentville.

Q Are the people adapted to anthracite coal here primarily?

A Yes, as far as their types of furnaces are concerned I think a good many are perhaps more adaptable to the burning of anthracite than to bituminous coal.

Q This bituminous coal has been mined in Nova Scotia a long time?

A Yes.

Q But apparently there was not any effort made in the early days to keep out the American anthracite? Whether there was any effort the anthracite certainly came in?

A That's right.

Q Well, to the extent that the installations were built suitable for American anthracite?

A I think that the average round boiler is more adaptable to the burning of anthracite coal. It has depth to its fire-box and you are bound to have an excess of coal over air if you try to burn bituminous coal in that type, while the



rectangular-shaped hot-water boiler, firebox boiler, is very much more adaptable, I would think, although I am no authority on that, to the burning of our bituminous coal, and I think definitely our hot-air domestic furnace is not adaptable at all to the burning of our bituminous coal.

Q There may have been a hundred reasons for it. Perhaps the research in bituminous has not advanced rapidly, but the fact is that now bituminous coal seeking to enter the domestic market in this area has got to overcome the already existing installations which were built for anthracite coal?

A That's right.

Q Have you had any experience in the British bituminous?

A Yes.

Q Was that good coal?

A Very good coal.

Q More suited to your trade than the Nova Scotia bituminous?

A Well, our proportion of sales would not indicate that.

Q When the two coals were available the British coal did not particularly outsell the Nova Scotia coal?

A Oh no. Oh, I am sorry. You are referring to bituminous coal. Of course we handled mostly our Nova Scotia coal at that time; we didn't go into importation too strongly; we stuck pretty well to our Nova Scotia coals; I wouldn't be able safely to say, but what coal we did buy overseas, bituminous coal, I think we bought from Cunards. We bought Yorkshire treble coal. It is a very excellent preparation of coal. I have my doubts if the quality was any better, it might have been more a type of domestic coal than ours, but speaking from a personal standpoint I would rather burn our own coal.

Q As between the two things, proper preparation and inherent quality of the coal, which would you say was the more important?

A I would almost think from a domestic standpoint the preparation is more important. I mean as far as the purchaser





of the coal is concerned he would be more concerned with the preparation; he wouldn't be so much concerned with the quality.

W. C. VINCENT. Examined by Mr. Frawley.

Q You had the advantage of listening to Mr. Oyler and Mr. Condon and you have an idea from the questions the kind of information the Commissioners are interested in. Would you like to add anything to what these gentlemen have said?

A Well, being in a small town I don't know that there is very much that I can add. The three of us are here on a competitive basis and I rate myself as the smallest one of the three.

Q Mr. Oyler and Mr. Condon and yourself are all the coal dealers in Kentville?

A Thank God there are no more of us.

Q You are in a smaller way of business than either Oyler or Condon?

A I certainly am.

Q Do you sell both domestic and industrial?

A 90 per cent of my customers are domestic.

Q Have you any big industrial consumers in this area?

A No, I have not.

Q Are there, I mean? Who would be the biggest within 10 miles of Kentville?

A Canada Foods, outside of the D.A.R..

Q Are you able to buy, as far as you know, on the same basis, are you able to get your coal as cheaply as your competitors?

A No sir.

Q Whom do you have to buy from? Take Cape Breton coal. Can you buy from Dominion Coal?

A I can't buy from Dominion direct or D. F. Curry.

Q Why would Mr. Curry not sell to you?

A He doesn't trust my credit.

Q If you want that coal from whom do you have to buy?



- A I should say in fairness to Mr. Curry, I took over a defunct firm some 11 years ago and they stuck Dominion Steel and Coal for plenty. At the present time the same people that are in it don't operate it and Mr. Curry and the firm back of him ---
- Q Well, we are really not interested in that.
- A I buy from Standard Coal Company in Amherst and I buy from S. Cunard and any Dominion Steel and Coal products that I use I buy from H. D. Oyler, Kentville Coal and Coke, and that also applies to the Intercolonial Coal Company. I might say the explanation that we have--talking about these steam units--the explanation that has been given to me that when Nova Scotia was in the woods--it is not very far out yet--but when it was, wood fuel was largely consumed. When the change came from wood fuel to hard coal the large manufacturers of furnaces sent to the United States for their plans of furnaces, and therefore the furnaces built by those manufacturers were built to burn anthracite coal, which was the only coal in the United States, and I think that is a large share of the reason that we don't get the full benefit from bituminous coal in them.



C. B. WETMORE - EXAMINED BY MR. FRAWLEY

Q. You live in Wolfville Mr. Wetmore?

A. Yes.

Q. You are the President of the Wolfville Board of Trade, and you have a submission to make to the Commission here today?

A. Yes. I am not very conversant with the business other than as a consumer. But as you suggested, I am President of the Board of Trade and the Committee met and had the privilege of reviewing the brief which has been submitted to you by the Kentville Board of Trade and we felt we would like to support it, and we do esteem it a privilege to have the Commission sit in the Valley and to have an opportunity of at least voicing our appreciation of this hearing. The complaints, generally speaking, that we hear are those of the consumer, and we have prepared a memorandum which I shall read to you.

EXHIBIT NO. 51 - Memorandum of Wolfville  
Board of Trade, 5/2/45.

MR. WETMORE THEN READS THE MEMORANDUM, as follows:

The Wolfville Board of Trade believe that the preservation of the Nova Scotia coal industry is essential to the development of this Province.

The Board realizes that there are many problems connected with the production of coal with which it is not familiar, and on which it can offer no suggestions. These are matters for financial experts and production engineers.

The Board can only offer suggestions from the point of view of the consumer.

The Board has had an opportunity of perusing the brief submitted by the Kentville Board of Trade, and is in substantial agreement with the points outlined therein, and wishes to associate itself with the Kentville Board of Trade in support of their brief.

As this Board sees the problem, there are two problems of vital importance to the consumer. In the first place, merchandising trends during the past quarter of a century





have been toward standardization and higher quality. In this the coal industry has failed to make progress. A better quality product of uniform standard is absolutely essential in order to meet the consumer demand.

In the second place, modern methods of communication have made available competitive coal of high quality at reasonable price. The quality of the Nova Scotia coal has not improved while the price has increased. We do not believe it economically feasible to prohibit the importation of foreign coal. Therefore, it may be necessary for the Federal and Provincial Governments to assist by subsidy the production of Nova Scotia coal. Short of this, it is suggested that the Commission should consider two matters.

(a) At one time, over-riding commissions of 25¢ or more a ton were paid to dealers who rendered little or any service therefor. Whether such commissions are now paid, it is not known. It is suggested that this matter should be enquired into, and if such commissions are still payable, they should be discontinued.

(b) Freight rates are excessive. It is realized that this is a matter for the Board of Railway Commissioners, but experience has shown that reductions can be obtained by making proper representations to that Organization.

All of which is respectfully submitted.

WOLFVILLE BOARD OF TRADE

(Sgd) C. B. Wetmore, President.

F. C. Bishop, Secretary.

C. B. WETMORE - EXAMINED BY MR. FRAWLEY

Q. Mr. Wetmore, is there some foreign coal coming in to Wolfville? Either American or British?

A. As I intimated a while ago, I am sorry that I am not very conversant with the types of coal that are imported there. I might explain that the reason we are not represented by a Coal Dealer is that we have two regular coal dealers established there, but both firms were taken over by new management the first of



the year and the gentlemen in both cases were entirely new to the business and were not in a position to give us very much information. One of the retiring dealers was ill when we had our meeting and was unable to attend, and we didn't get any information from him. The percentage of coal in normal times I would say was more than 50% in favor of so-called Scotch and Welsh anthracite for domestic purposes.

Q. So in ordinary times more than 50% of the domestic fuel in the Wolfville area was imported?

A. Yes.

Q. And the rest would be Nova Scotia bituminous?

A. The rest would largely consist of fine coal for stoker purposes.

Q. And I suppose it is because of that that you say you do not think it advisable to prohibit the importation of foreign coal?

A. Right.

Q. But you say because of that it may be necessary for the Government to assist by subsidy the Nova Scotia coal. Have you anything in mind there that would help us understand that? What did your Committee have in mind?

A. That is a pretty technical question to go into.

Q. You would rather not make any comment on it?

A. I would prefer not to.

W. MEISNER - EXAMINED BY MR. FRAWLEY

Q. Mr. Meisner, you are the Manager of Canada Foods Ltd.?

A. Yes.

Q. What is the nature of your business?

A. Dehydration.

Q. Have you quite a big plant?

A. Quite large.

Q. How much coal do you consume in a year?

A. From 2000 to 2500 tons.

Q. What kind of equipment have you?

A. Mechanical stokers, overhead feed I believe you call it; blows the coal in over the top.





Q. What kind of coal do you use?

A. Mostly Old Sydney.

Q. Bituminous?

A. Yes.

Q. And your coal is Nova Scotia coal?

A. Yes.

Q. And has always been as far as you know?

A. Yes.

Q. And it is perfectly satisfactory?

A. Quite.

Q. What kind of coal?

A. Slack.

Q. Stove slack?

A. Stoker slack.

Q. Do you buy that direct from the mine?

A. Direct from Mr. Currie.

Q. Do you deal with Mr. Currie, the Agent at Halifax?

A. Yes.

Q. You don't deal with any local dealer at all?

A. No.

Q. Was there anything particular you wanted to say to the Commission?

A. Nothing particular. Taking the various coals of stoker slack, it appeared to us if they gave us a good clean coal and very fine it would be very suitable for our use. There is a coarser slack for domestic use which we do not desire, but it must be clean coal, no rock.

Q. Have you discussed that matter with Mr. Currie?

A. That is Mr. Currie's coal.

Q. I thought you said you burned Old Sydney?

A. Sometimes, but we have a car of Bras d'Or now. The Sydney is not available.

Q. Bras d'Or slack?

A. Yes.

Q. Is your difficulty something you have tried to correct and



have not been successful?

A. It is all right with us, the coarser grade is suitable, but my idea would be that it would be better for domestic use and the finer would be as satisfactory for us.

Q. You are really voicing the position of the domestic consumer?

A. Yes.

Q. It comes to his being able to get a properly prepared sized coal?

A. Yes. The only other thing would be the freight rate, \$2.60 at Kingston, and \$2.20 at Middleton.

Q. You don't operate at Middleton, do you?

A. No, but we have competitors that do.

Q. You have competitors in dehydration at Middleton?

A. Yes.

Q. And they get their coal for \$1.80?

A. Yes, and it is a greater mileage.

Q. To Kingston where you do operate it is \$2.60?

A. Yes.

Q. And it is \$1.80 to Sackville?

A. \$2.20 to Middleton. It is 30¢ less to Middleton than Kentville, and 40¢ less than Kingston, which is only 7 miles east. It seems to me that is not a regular for the coal Commission, but it seems very unfair to us here.

BY COMMISSIONER MORRISON - How long has that differential been in effect?

A. As long as I can remember, 20 years or more. It seems so unjust for Kingston.

Q. In that 20 years has the Government of the Province, or any Board of Trade, or any other interested body, taken this matter up?

A. Not that I know of. We have gone after Mr. Smith and his predecessor, but they tell us their hands are tied. Kingston is seven miles east of Middleton, and we could get a truck and truck it up and have it unloaded in our shed there as cheaply as we can get it on the siding.

Q. In all these 20 years you have been suffering from this adverse freight rate?



A. That is right.

Q. And with the product that you sell are you also affected adversely?

A. Well on the Montreal market, or Toronto, we get the same rate via D.A.R., C.P.R. and C.N.R.

Q. It is just coming in that they hold you up?

A. Mostly, Sydney to Kingston. We would probably get a better rate if we had a plant at Middleton.

Q. Your competitors have a plant at Middleton?

A. Yes.

Q. And no doubt they do sell to Sydney say?

A. Yes.

Q. Do you suffer an adverse freight rate on your product from here to Sydney as compared with your competitors from Middleton to Sydney?

A. Yes, we do.

B. T. SMITH. Examined by Mr. Frawley.

Q. You are the secretary of the Hantsport Board of Trade?

A. President of the Hantsport Board of Trade.

Q. You have no prepared submission?

A. No, we have not.

Q. What would you like to say to this Commission?

A. I am only here in the interest of the consumer. We are also very pleased to have this opportunity to represent our town at this hearing, but the consumer has a very serious problem so far as the coal industry is concerned in our section of the country. The price is entirely too high; there seems to be a discrimination of distribution. At the present time I don't think there is 100 pounds of coal in the town of Hantsport. That has always been the case right through and through each year. We are always in fear of running short of coal or coke. We have no choice of supplies; we have to take what we can get. The freight rate is a very high item.

Q. These difficulties about not having anything to say about





the supply, that is just coal control; that is war?

A I am not a coal dealer.

Q In peacetime did you have any such difficulty?

A None in peacetime. But when the price of coal was raised within the last 12 months, and coke from \$13.50 to \$15.00 a ton it is quite a difference.

BY THE CHAIRMAN: Coke has increased?

A Yes. Other coals have risen in price about the same percentage of an advance. In that way it is making it a hardship on the community. We are just a farming community practically, have no industries of any great extent employing a great many people, and it is quite a hardship on the community itself.

BY THE CHAIRMAN: Any shipbuilding done there now?

A No shipbuilding at the present time, but I feel myself that the market for the Bay of Fundy ports is Springhill, Cumberland County. Years ago, before the freight rates changed, we had barges, lighters and schooners carrying coal from Springhill to the Bay of Fundy ports, that is Hantsport and Windsor. These have all disappeared of recent years.

Q Did that traffic disappear before the war?

A Oh yes, quite a number of years ago. At that time we had steamers unloading at very low rates from Springhill, the loading pier at Parrsboro. Since that has disappeared of course the coastal schooners have disappeared also, and I think myself if that loading pier was opened up, loading facilities were available at Parrsboro for Springhill coal, it would encourage shipbuilding, especially in small schooners and lighters, in Bay of Fundy ports.

Q When was the pier closed at Parrsboro?

A Well, it has been closed for some time.

Q Before the war?

A Before the war, yes.



MR. CURRY: May I interject. It is not closed.

A It has been discussed considerably at Windsor and Hantsport for quite a number of years.

BY THE CHAIRMAN: Was there a shipping pier at Pugwash also?

A No.

MR. CURRY: There was never a shipping pier there, just a loading wharf, mostly lumber.

A Judging from the information I have received from a coal dealer he buys from Halifax and Windsor and he tells me he never buys it any other way, that is the only way he can buy it but the carloads are shipping direct from the mines at Inverness, Sydney, Stellarton.

BY COMMISSIONER MORRISON: Do you get any foreign coal?

A Yes, we had that; we had American anthracite in carloads, but in years gone by we had had the English anthracite as well. We would prefer the English anthracite more so than the American.

H. E. BEARDSLEY. Examined by Mr. Frawley.

Q Did you wish to say something, Mr. Beardsley?

A Just to the competitive freight rate. We are seven miles from Middleton and there are consumers in that area and we have to compete with Middleton coal dealers and it doesn't seem fair they should enjoy a 40 cent preference in freight rate.

Q What do you mean? You have to pay --?

A We are 7 miles apart, 6 miles, Middleton and Kingston.

Q But you are in the creamery business?

A We are in both, creamery and retail coal business.

Q As a consumer do you find yourself at a competitive disadvantage with the creamery at Middleton?

A They enjoy a 40 cent preference in freight rate.

Q All of the difficulties you have in mind stem from the differential in the freight rate?

A I would like to see a more uniform quality of coal produced





in Cape Breton. No two cars are alike. There is such a variation from one car to the next car the people bawl you out because it doesn't compare with the last one.

BY COMMISSIONER MORRISON: Do you handle foreign coal too?

A Yes sir.

Q To a large extent?

A Oh, very small. We had two cars of American this year. We found it very poor coal.

BY MR. FRAWLEY: That is all the witnesses we have.

BY THE CHAIRMAN: We want to thank the people of this vicinity for being sufficiently interested in this thing to come here and spend half-a-day with us and we want to thank the Boards of Trade and the Mayors and so on for their interest and co-operation.

11.55 A.M. - COMMISSION ADJOURNED







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